SUPREME COURT U.S.
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Supreme Court of the United States.

OCTOBER TERM, 1881.

No. 245.

ASA JOHNSON AND THOMAS S. SANDFORD,
APPELLANTS,

vs.

THE FLUSHING AND NORTH SIDE RAILROAD COMPANY,
APPELLEES.

BRIEF FOR APPELLANTS.

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1882.

Supreme Court of the United States.

ASA JOHNSON and THOMAS S. SANDFORD, Appellants,

vs.

THE FLUSHING AND NORTH SIDE RAILROAD COMPANY, Appellees.

No. 245.

STATEMENT OF THE CASE.

This is an appeal from the whole of the decree of the Circuit Court of the United States for the Eastern District of New-York in the above entitled action, in which the opinion was delivered August 27, 1878, (Rec., pp. 221–225, fols. 437–445,) decree of final hearing entered February 10, 1879, (Rec., p. 226, fols. 447, 448,) and decree for judgment, entered April 14, 1879, (Rec., p. 227, fol. 450.)

The action was brought to restrain the Flushing and North Side Railroad Company from using a certain fastening known as the "fish plate joint," upon the ground that the appellants have the exclusive right to the use of such fastening by virtue of a patent "for an improved mode of fastening sheet metal to roofs," &c., granted to Asa Johnson and others on the 19th day of May, 1857,

extended for seven years from the 19th day of May, 1871, and re-issued under the number 4,870 on the 16th day of April, 1872.

In the opinion the Court, after construing the re-issued patent and assuming the appellants' construction of said patent to be correct, determines the use of the "fish plate joint" to be an infringement thereon. (Rec., p. 222, fol. 439.) Then, turning to the question of the validity of said re-issue, declares it to be invalid, for the alleged reason "that the essential elements of the combination described in the re-issue are different from the essential elements of the combination described in the original patent, and that the result produced by the combination described in the re-issue is different from that produced by the combination described in the original patent," (Rec., p. 224, fol. 443,) and, therefore, directs that the bill be dismissed, with costs. (Rec., p. 225, fol. 444.)

Whereupon these appellants did appeal from the whole of said decree of said Circuit Court to the Supreme Court of the United States, praying that said Supreme Court will proceed to hear the cause anew, and that the said decree of said Circuit Court, and every part thereof, may be reversed, and a decree made sustaining the said bill of complaint, and granting the prayer thereof for relief, with costs, or such other decree as to the said Supreme Court may seem just. (Rec., pp. 231, 232, fol. 468.)

The bill of complaint in this cause is in the usual form. (Rec., pp. 1, 2, 3, 4, 5, fols. 3 to 113.) It alleges a grant of a patent to Asa Johnson, assignor of part interest to William Higbie and Henry Link, for an "improved mode of fastening sheet metals to roofs, &c.," on the 19th day of May, 1857; the extension of said patent for seven years from the 19th day of May, 1871; the re-issue of said patent to Asa Johnson and Thomas S. Sandford, his assignee, on the 16th day of April, 1872; the title of complainants in said re-issued letters patent; the in-

fringement by the defendants. The bill prays the usual injunction, assessment of damages and account.

The answer (original and amended) admits the grant, extension and re-issue of said patent, but denies the infringement of such re-issue; that the original patent was inoperative, or was legally surrendered, or that the re-issue was lawfully issued; that Johnson was the original and first inventor of the improvements described and claimed in said re-issue; and alleges that the same had been known and used prior to Johnson's alleged invention thereof, in various ways and at different places set forth in the answer; and also alleges that, if said Johnson was the inventor of any self-adjusting fastener applicable to railroads, he had abandoned the same; and that said patent, so far as it covers or is claimed to embrace and cover such an adjustable fastener as applicable to railroads, is null and void. (Rec., pp. 6, 8, 10, fols. 13, 17, 23, 24; and addition to Rec., pp. 1 and 2, fols. 1 and 2.)

Assignment of Errors.

First. The Circuit Court erred in decreeing that the re-issued letters patent, No. 4,870, granted to Asa Johnson and others, April 16th, 1872, for "an improvement in fastening metals to roofs," being the letters patent for an alleged infringement of which the suit was brought, are null and void as being for an invention different from that described in the original patent.

Second. The Circuit Court erred in dismissing the bill of complaint, and in not decreeing as prayed for in the bill of complaint.

POINTS.

First Point.—*The re-issued patent, No.* 4,870, *dated April* 16*th*, 1872, *is not null and void. It is not for an invention different from that described in the original*

patent. On the contrary, it is for the same invention as that described in the original patent, and consequently valid beyond doubt.

A. *The title of the original and re-issue are the same.*
Rec., p. 199, fol. 390, original.
Rec., p. 202, fol. 399, re-issued.

B. *The scope of both original and re-issue is identical.* The invention was not designed to be limited to the fastening of sheet metal to roofs, as will clearly appear from the language of the patent itself. In both the original patent and the re-issue the patentee says: "I contemplate using my invention as a *general fastener*, "where it is necessary to allow for the contraction and "expansion of the material used, not confining myself "to buildings only." (Rec., p. 200, fol. 393, as to original; Rec., p. 203, fol. 402, as to re-issue.) And, again, in the first claim he claims the self-adjusting fastener as described "for fastening metals in any and all other "places where the contraction and expansion demand "an accommodation." (Rec., p. 201, fol. 394, as to original; Rec., p. 204, fol. 402, as to re-issue.)

C. *Both original and re-issue patent were for a new device, and not merely for a combination.*

The appellees in this case have submitted testimony showing fully the state of the art at the time of and subsequent to the inception of this invention, all of which clearly demonstrates the absolute originality of this invention. The differences may be briefly stated to be that Johnson's invention is an adjustable bolt, to be used for fastening metals, and accommodating their expansion and contraction by moving with the material fastened; whereas, each and every one of the fasteners produced by the appellees is composed of fixed, stationary bolts, the contraction and expansion of the material fastened

being allowed by cutting away the material so that it should not strike against such stationary bolts.

"To determine accurately the extent of the invention "secured by any re-issued letters patent, the state of the "art at the time the original patent was granted, must "be considered." (Garneau *vs.* Dozier, Weyl & Co., Supreme Court, 19*th Pat. Off. Gaz.* 61.)

The learned Judge from whose opinion this appeal is taken has himself held in Andrews *vs.* Carman, (13 *Blatch.* 307,) that there can be no patent for a principle; but "for a principle so embodied and connected with "corporeal substances as to be in a condition to act and "produce effects in any trade, mystery or manual occu-"pation, there may be a patent."

So, there may not be a patent for an adjustable bolt, but when the idea of an adjustable bolt is so embodied and connected with corporeal substances as to produce a perfect self-adjusting fastener, there may be a patent without forfeiting the claim as to the novelty and originality of the principle.

In this connection it will be useful to refer to the testimony of the inventor, to show how the idea of this principle first impressed itself upon him. We quote, (Rec., p. 53, fols. 110, 111:) "Also by hearing father "and others talking about the great objections there "were to the use of metals for roofs and other places "where they required fastening, on account of the con-"traction and expansion of the metals. Father said if "that objection could be overcome, it would be the best "material there was for roofs and other purposes. If "some invention could be made that would obviate that "difficulty, it would be a good thing. Then, while lying "in bed, under the roof in father's chamber, thinking "about it, and seeing the nails stick down through the "the roof boards, an idea occurred to me that if those "nails could only move with the material through which "they passed, there would be no strain on either the "nails or the material through which they passed. I

" then thought that there was a new and valuable prin-
" ciple of fastening metals which I would not forget."

All this, no doubt, is very simple, but the testimony in the case shows that it was original, and we have yet to learn that simplicity is an objection to an invention.

The Court below considered the specification and claims of the re-issued patent, and corrected (Rec., p. 222, fol. 439) a clerical error, (consisting in the duplication of the word "with," which had crept into the second claim,) in accordance with the views of appellants and of their expert, Mr. Eliot. (See his testimony, pp. 82, 83, fols. 166, 167.)

After adopting the construction of the said second claim contended for by the appellants, and holding that such construction disposes of the question of infringement, (Rec., p. 222, fol. 439,) the Court below considered the question of the validity of the re-issue and the construction of the original patent, which it declares to be for a combination. The Court below concedes that nowhere in the original patent is the word combination to be found, but asserts that "certain simple devices appear " in the description, but as elements of a combination, " and the language nowhere conveys the idea that the " inventor has discovered any thing but a method of " using old devices combined in a certain way to pro-" duce a certain result. Whether the claim as con-" structed is for a combination or not is immaterial " here; as that claim, although forming the first claim " of the re-issue, is not relied upon by the plaintiff. " What is described is alone material, and that is noth-" ing unless it be a combination." (Rec., p. 223, fol. 440.)

This we dispute for the reasons before advanced, and claim that the invention described in said original patent is for a device as new and original as was the sewing machine needle.

We claim, therefore, that this patent covers an original principle, and that it is not, as declared by the Court below, to be for a combination.

"Invention appearing, the law does not attempt to "measure its extent or degree."

(Washburn & Moen M. Co. *vs.* Haish, 19*th Pat. Off. Gaz.* p. 173.)

"Utility is suggestive of originality, and the fact of "the acceptance of a device or combination by the "public and putting it into extensive use, is accepted as "evidence that it was the product of originality."

(*Idem.*)

D. *The re-issued patent and the original are for the same invention.*

Even were the original patent for a combination, we contend that the re-issue was for the same invention as that described in the original patent, and, consequently, valid beyond doubt.

And be it observed that nowhere in the opinion we are discussing does the Court assert that the invention described and claimed in the re-issued patent is different from the invention described and claimed in the original patent. The guarded language of the opinion is as follows: "By these changes (*i. e., making the "stud and bottom plate non-essential elements of the "fastener*) a substantial change in the subject matter "has been accomplished, and upon established princi- "ples the conclusion must follow that the re-issue is "void." (Rec., p. 224, fol. 443.)

We contend that it does not so follow at all, but that the established principle is only that "A re-issued patent "must be for the same invention as that which formed "the subject of the original patent, or for a part thereof "where divisional re-issues are granted."

(Giant Powder Co. *vs.* California Powder Works *et al.*, Supreme Court, 15*th Pat. Off. Gaz.* p. 289.)

The invention in this case is well illustrated by the drawings made by Johnson in 1843 and 1845, (in evi-

dence and marked pages 104 to 108, inclusive.) The drawings marked pages 106 and 108 show the application of the device to both roofs and railroad rails. The same device appears in the model and drawings of the patent itself. The drawings in the original and re-issue are identical.

N. B.—Compare original and re-issue patents with drawings.

In Thomas *vs.* Shoe Machinery Manufacturing Company, (16*th Pat. Off. Gaz.* p. 54,) Judge Clifford held that "re-issued patents are presumed to be for the same "invention as the original, and will only be adjudged "to be void because for a different invention where it "clearly appears that the re-issue contains some new "feature of a material character not described, sug-"gested nor substantially indicated in the specification, "drawings or Patent Office model.

In Sharp *vs.* Tift, Judge Wheeler held, that "when the "re-issue describes only what was described in the "original patent, both as to the devices and the nature "of the invention, it cannot be said that the invention "in one is different from that in the other, although the "claims have been changed and enlarged." (17*th Pat.* "*Off. Gaz.* p. 1282.)

"Matter so described in the original specification that "it might have been claimed in the original patent, may "properly be claimed in the re-issue."

(Washburn and Moen M. Co. *vs.* Haish, 19*th Pat. Off. Gaz.* p. 173.)

"It will not invalidate the re-issue that the claim is "broader than the claim of the original patent provided "that it is for the same invention shown and described "in the specification and drawings."

(Waring, Jr., *vs.* Johnson, 19*th Pat. Off. Gaz.* p. 1068.)

"Nothing which is plainly embraced in the specifica-
"tions, model or drawings of the original patent is re-
"garded by the Courts as new matter. Mechanical com-
"binations shown but not claimed in the original may
"be lawfully claimed in the re-issue. It must clearly
"appear that new matter has been introduced before a
"re-issue or its claims can be rejected."

(Dederick *vs.* Cassell, 20*th Pat. Off. Gaz.* p. 1233.)

"To re-issue the patent, that a claim to fully cover the
"invention may be entered, is warranted by the statute."

(Badische Anilin and Soda Fabrik *vs.* Higgin *et al.*,
15 *Blatch.* 290.)

"A suggestion in the specification, or an indication in
"the drawing or model of the original patent, may often-
"times justify enlarged description of the invention
"upon re-issue."

(Kelleher *vs.* Darling, 4 *Cliff.* 424.)

In the present instance a comparison of the two patents, in view of the drawings and model, will conclusively show that the invention is the same in each, and that the slotted side plates *will* produce an independent result, capable of being separated from the complete result sought to be attained by the use of the complete combination; although the opinion declares that there is no language indicating this in the original patent. And the express terms of the original patent, partially quoted in the opinion. (Rec., p. 223, fol. 441.) "I
"may find in using my adjustable fastener, it necessary
"to make some of them, those that are in the parallel
"lines with the flanges, to fit up close to the sides of the
"studs, as seen at 1, 1, in Fig. 2, allowing them to move
"in but one direction on the pin 3, which slides in the
"slots in the flanges 4, 4," (Rec., pp. 200, 201, fol. 394,) sufficiently suggest that the invention secured will not only connect the materials together, but also

prevent their lateral movements by securely clamping them between its flanges. In the original application this effect is described as follows: "It will be seen that "the flanges 4, 4, come in contact with the inner end of "connecting adjustable stud 2, compelling it to move "horizontally between the flanges 4, 4." (P. 215, fol. 423.) And, again, "the flanges 4, 4, not admitting the "adjustable connecting studs 2, in i. i. and J. J., to "move in but one direction for the purpose of *holding* "separate sections of metallic covering in the required "position where they may be desired to be used." (Rec., p. 215, fol. 424.)

But the main objection raised to the validity of the re-issue in the opinion under consideration is that "the "original patent is correctly interpreted when it is held "to include the stud and bottom plate as essential "elements of the invention secured," and that the "changes and additions made in the re-issue, as under- "stood by the plaintiffs, are not mere corrections whose "effect is to render accurate and specific what was before "uncertain, but they work an essential alteration of the "specification, and effect the elimination from the com- "bination of two elements, the stud and the bottom "plate, which before that were described as essential "elements of the combination secured." (Rec., p. 224, fol. 442.)

Be it again noted, that no suggestion is made that the *invention* is not the same as that described in the original patent.

We submit that it is well settled law that so long as the invention remains the same, the re-issued patent must be held valid, as all other alterations and amendments plainly fall within the intent and purpose of the statute which allows a surrender and re-issue. (Thomas *vs.* Shoe Machinery Manufacturing Co., 16*th Pat. Off. Gaz.* p. 541.)

"The prohibition of the statute in relation to re-issue "applications is limited to the adding of new matter to

"the specifications, and there is no obligation upon the "patentee to claim all things in the re-issue which were "claimed in the original invention." (Albright *vs.* Celluloid Harness Trimming Co., 12*th Pat. Off. Gaz.* p. 227.)

See, also, Carver *vs.* Braintree Manf. Co., 2 *Story*, 438.

"Minor features of invention, relinquished upon re-"issue, because—1, unimportant and valueless, and, 2, "lacking in patentable novelty, will not invalidate the "re-issue grant. Under the circumstances the re-issue "contains nothing more than the original patent, but "less. It is restricted to what the patentee regards as "actually his invention, and for which protection is "desired." (Gould *vs.* Ballard & Minchin, 13*th Pat. Off. Gaz.* p. 1081.)

"The drawings being identical with those of the "original patent, it is no violation of the re-issue privi-"lege to include in the new specification and claims "what was fairly indicated in the drawings to be within "the invention. Separate claim may be laid in the re-"issue to sub-combinations of elements united originally "in one combination claim." (Kerosene Lamp Heater Co. *vs.* Littell, 13*th Pat. Off. Gaz.* p. 1009.)

"Where the thing shown and described in the original "patent and in the re-issue is the same, but in the origi-"nal has been claimed with all its features in combina-"tion, the patentee can in the re-issue modify or divide "his claims so as to embrace severally the distinct "features of the thing invented." (Smith *et al. vs.* Merriam *et al.*, 19*th Pat. Off. Gaz.* p. 601.)

In Christman *et al. vs.* Rumsey *et al.*, Judge Blatchford holds, that "when the specification and drawings of "the original and re-issued patents illustrate and describe "the same mechanical structure, with the same mode of "operation, the re-issue may lawfully contain claims to "combinations of fewer elements than were contained "in the combination claimed in the original patent,"

and refers to and approves the doctrine sustained in Brown *vs.* Guild, 23 *Wall.* 181, and Herring *vs.* Nelson, 14 *Blatch.* 293; as against Gill *vs.* Wells, 22 *Wall.* 1, and Russell *vs.* Dodge, 3 *Otto*, 460. (17 *Blatch.* 148.)

"The original patent being unnecessarily restricted, it "was the object and proper office of the re-issue to cor- "rect this omission so as to protect the patentee to "the full extent of the invention. It is the peculiari- "ties of the case itself, and not of the method of fasten- "ing it to the strap, which is the valuable feature of the "invention." (Schuessler *vs.* Davis, 13*th Pat. Off. Gaz.* p. 1011.)

So, in the present case it is manifest that the peculiarity of the self-adjusting fastener, and not the method of applying it to the roof, is the valuable feature of the invention.

Clearly, if Johnson is confined to the use of a fastener of which the stud and bottom plate are held to be essential elements, he would not benefit by his expressed intention to use it in any and all places, but would be restricted to the use of it on roofs. This, we submit, would be rank injustice, and contrary to all precedent.

"The patentee is entitled to the exclusive use of the "whole of his patented invention, and, if it is of a com- "bination of numerous parts, including in it other new "and useful combinations of less of the parts, he seems "to be entitled to the exclusive use of these lesser "combinations, as well as to the exclusive use of the "whole." (Holly *vs.* Vergennes Machine Company, 18*th Pat. Off. Gaz.* p. 1177.)

As we shall hereafter have occasion to remark, the claim of the original patent was very general in its terms, but it indicates positively that Johnson did not intend to confine himself to the specific structure described in the specification. His language conveys no uncertain meaning on this point. We quote: "What I claim and desire "to secure by Letters Patent is the self-adjusting fas- "tener, as described, for the purpose of attaching metallic

" covering to buildings, and accommodating itself to the " contraction and expansion of the metal, *and for fas-* " *tening metals in any and all other places where the* " *contraction and expansion demand accommodation* " SUBSTANTIALLY AS SET FORTH, OR ANY MECHANICAL " DEVICE EQUIVALENT THERETO." (Rec., p. 201, fol. 394.)

Now, with respect to the functions of this stud and bottom plate: The stud is a part of the material to be fastened, and is permanently attached thereto. It represents in this case the web of the rail, which also is grasped by the side plates, just as the roof is represented by the tread of the rail. The drawings, marked pages 106 and 108, indicate the manner in which the inventor worked out this idea. The bottom plate, which is part of the flanges or side plates, is, it must be admitted, a very beneficial element of the device, and undoubtedly will eventually come into general use; but it is clearly a non-essential, since, for all the purposes of the self-adjusting fastener, it is simply an auxiliary to the adjustable bolt, which is much strengthened by the bottom plate's assistance in keeping the side plates together.

If ever there was a case where a patent required to be re-issued, it was just this original patent of Johnson's. He gave a description of a large number of devices, such as screws, stud, india rubber cord, flanges or side plates, bottom plate, pin, &c., &c., all being described without statement as to what he claimed, although many of them were plainly optional, and he ended his statement by claiming, in general terms, "the self-adjusting fastener, as described," without specifying which were its essential elements, although it was evident from his statement that he contemplated using it "in *any and all* places where metals require fastening," &c., that material modifications would be necessary, especially in the means of connecting the materials to be fastened together, with the adjusting parts.

The law of 1836, under which this patent was granted, required the inventor not only to make a drawing and

writtend escription of his invention, but also, that "in "the case of any machine, *he shall fully explain the* "*principle* and the several modes in which he has con- "templated the application of that principle or charac- "ter by which it may be distingushed from other inven- "tions, and shall *particularly specify* and *point out* "*the part, improvement or combination*, which he "claims as his *own* invention or discovery." (*Act of* 1836, Sec. 6.)

The law further provided for the case of a re-issue of the patent on an *amended specification* in case of "a "defective or insufficient specification," when the error "had arisen by inadvertence, accident or mistake."

Now Johnson's original application and specification show unmistakable marks of having been prepared in ignorance of the law. A simple perusal of that specification, with all its interlineations, erasures and marks of disapproval by the Patent Office, (Rec., pp. 208–218,) shows that Johnson was proceeding entirely without advice and knowledge of his rights. He gave a description of nearly an entire building, and of a large number of devices auxiliary to his fastener, without fully explaining, as the law required, "the principle of his invention," and he also failed to "particularly specify and point out "the part, improvement and combination which he "claimed as his discovery," and "the several modes in "which he contemplated the application of the prin- "ciple."

This latter he could not do in a re-issue because the law prohibits the introduction of new matter; but he could comply with the law in the other particulars, and by amendment under re-issue he could make it apparent what the essential parts of his invention were, and by describing the application of the invention in one location, he could render its application obvious in other locations, and under different circumstances. In the original patent all the parts were put on a dead level, and the claim was of such an indefinite character that it

was impossible to say what was claimed with any precision. In the re-issue he has complied with the law. The features which he has there described are the essential features, those which make it a self-adjusting fastener; while the features described as non-essential are clearly so from the construction of the device.

"It is of no consequence that a re-issue states that certain combinations are found in the machine which will act in a certain way and effect certain results, when the original did not state that such combinations were found there, or failed to state that said modes of operation and said results would follow, provided the said combinations in fact existed in a machine made according to the drawings and description in the original patent, or provided the said modes of operation and the said result in fact followed in a machine so made. To supply such defects is the very object and office of a re-issue." (Potter *et al. vs.* Stewart, 19*th Pat. Off. Gaz.* p. 997.)

The re-issue remedied these defects. It correctly states the principle of the invention as follows:

"The principle of my invention consists in connecting the metal to be fastened with a bolt or pin arranged to slide in slotted bearings in the direction of expansion or contraction, said adjustable bolt and its bearings being combined with the materials to be fastened."

This is a clear explanation of the *real character* of the device shown in the original patent when stripped of the accidental features which adapted it to use in the roofs of buildings.

The patentee, in further compliance with the law, then added:

"I have found my adjustable fastener peculiarly useful in fastening metallic roofs to buildings, and I proceed to describe its construction and use in that connection from which other uses will be obvious."

Then followed a description of the device, in which the

essential parts are clearly distinguished from the non-essential.

The first claim (probably retained out of deference to the patentee) is perhaps open to criticism as similar to that in the original patent, though the clear descriptions in the body of the specification would seem to remove doubts. The second claim, however, is a clear compliance with the law, and "particularly points out and specifies" the parts and combination of parts claimed by the inventor.

It is this claim which is principally in issue, and it is clear that so far from involving a departure from the law, as being for a different invention from the original, it corrected the defects of the original by a clear compliance with the terms of the statute.

SECOND POINT.—The patentee, Johnson, was entitled to all the benefits which result from his invention, and that, too, whether he specified all the benefits in his patent or not. An examination into (A.) the history of the invention, (B.) the consideration of the re-issued patent, and (C.) the defences interposed by the appellees, will clearly demonstrate this.

A. THE HISTORY OF JOHNSON'S INVENTION.

Mr. Asa Johnson, the inventor of the self-adjusting fastener for which the patent was granted upon which this suit is brought, shows by his examination, that he has devoted much of his time since he was eighteen years of age to the carrying out and perfecting of many valuable inventions.

Mr. Johnson was born on the 17th of October, 1822, in the town of Franklin, Delaware County, New-York State; he resided with his father and his family in the town of Franklin, until he was about 24 years of age. (Appellants' Proofs, p. 57, xq. 80, 81, 82.)

About the year 1841, his attention was first directed to

the subject of fastening metals together, having special reference to provision for expansion and contraction of such metals as they are affected by heat and cold. (Appellants' Proofs, p. 50, q. 4, 5, 6.)

In the year 1843 his ideas on the subject assumed practical shape, and in that year he constructed a model which is in evidence in this case, and is known as "Johnson Model, 1843," and "Johnson bolt, 1843." He also made two drawings, *fac similies* of which are are to be found on pages marked 104, 105 of the Record.

This model was shown by Asa Johnson at the time or shortly after it was made, namely, in the Spring of 1843, to Alanson Strong and Griswold Johnson, who were at work on the farm together with him. Both Strong and Griswold Johnson corroborate Asa Johnson on this point. They describe clearly and succinctly the circumstances under which it occurred, and in such a way as to leave no doubt as to the accuracy of their statements, and of the facts which they narrate.

A comparison of the answer of Alanson Strong to q. 5, p. 37, Appellants' Proofs, and that of Griswold Johnson, q. 6, p. 42, and that of Asa Johnson, q. 18, 19, p. 51, will show that, although there are some minor differences, yet still, their recollections as to the general facts are the same. As to the question of date also the proof is very positive. Alanson Strong recollects it from the fact that it was the last time Asa worked for his father, being the summer before he came of age, and also that it was the last time that he (Strong) worked for Asa's father. (Q. 11, 12, p. 38, Appellants' Proofs.)

Griswold Johnson recollects it from certain papers in his possession showing transfers of property in 1844 and 1845, which deeds are in evidence at pages 185 and 187, Appellants' Proofs. He says, (p. 46, 61 xq.:)

"61 xq. You say you fix that time, 1843, from the two deeds you have pre-
"sented, one given in 1844 and one in 1845; how are you able to say it
"was not a year before the last deed was given that you first saw the
"model?"

"A. From the fact that we worked the place together, my brother and "I, and that Mr. Strong was working for my father at the time, this being "before my brother was of age."

Asa Johnson is confident that he made the model before he became of age.

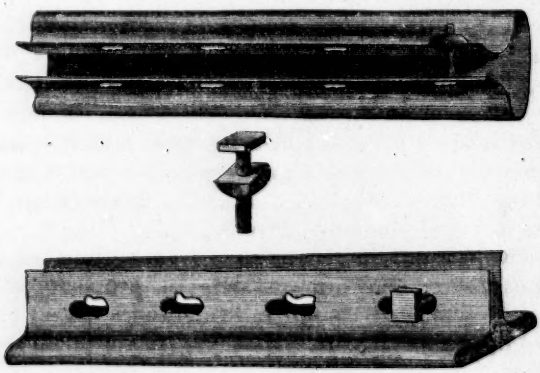
"I know (he says) that I made them (referring to the Johnson model "and bolt, 1843) before I was of age, while I lived at father's, and before "I showed them to Alanson Strong and Griswold Johnson." (Q. 32, p. 53, Appellants' Proofs.)

And at q. 37, p. 54, he says he came of age on the 17th of October, 1843.

The deed given by Ira Johnson, the father, shortly after Asa Johnson came of age, which is testified to by both Griswold and Asa Johnson, is dated March 23d, 1844.

Thus we have by the testimony of the patentee and of two disinterested witnesses, the fact proven beyond all peradventure that in 1843 Asa Johnson had constructed a working model of that part of his invention which is now in use on the appellees' line of road.

Following are wood cuts of the model and bolt in question:



But, in addition to the model, Asa Johnson had made several drawings, some of which are still extant. The

two drawings, *fac-similies* of which are to be found on pages marked 104, 105 of the Record, were drawn on the fly leaf of an old book, which book, with the drawings therein, is in evidence.

Johnson does not seem, at this time, to have shown these drawings to any one; but they bear upon their face intrinsic evidence of having been made at the time stated, and the date, "1843," on one, and "April, 1843," written on the other, Asa Johnson testifies to be in his handwriting, and to have been placed there at the time the drawings were made by him. (Q. 27, 28, p. 52, Appellants' Proofs.)

Johnson, however, was not fully satisfied with his invention as it stood. This model being adapted for use on railroads principally, provided for expansion and contraction in one direction only.

Johnson desired to improve on this by providing for expansion and contraction in places where it could not be known in which direction the metal would move, as for instance on metallic roofs, so he continued to experiment, having that object in view, and the result of his experiment is to be found in drawings made in 1845, *fac-similies* of which are to be found on pages marked 106, 107, 108 of the Record, and the originals of which are before the Court. They also bear upon their face evidence of the fact of their having been made at the time stated, and contain the date of their making in the handwriting of Mr. Johnson. (Q. 30, p. 52.)

On page 106 of the Record the upper long drawing represents a railroad rail with its side plates, as shown in the drawings made in 1843, and represented on pages 104 and 105 of the Record, but the lower drawing, marked November, 1845, represents a different arrangement. There appears a piece bolted on the top of one fastener, the head of the bolt showing above it, and this piece is connected at the other end with another fastener, an arrangement manifestly intended to represent a roof as explained in Johnson's testimony. This idea is elabo-

rated in the drawing represented on page 108 of the Record, where Johnson also wrote, in November, 1845, the following explanation of the drawing, namely: "Fig. one shows the adjustable fastener as I intend to "make them for connecting railroad rails; and figure "two as for fastening metal on roofs of buildings."

The upper part of figure 2 represents clearly a metallic roof, and that metallic roof is shown to be connected by studs, or downward extensions, with the bolt which may move in the slots in the side plates. The same idea is manifestly present in both arrangements; one is a modification of the other to adapt it to use in a different location and under different circumstances.

On the 14th of September, 1846, Johnson married. He resided in Franklin until the following Spring, and then moved to the town of Cairo, Greene County, New-York. (Testimony of Clarissa A. Johnson, p. 47, q. 3, 4, 5, Appellants' Proofs.)

Immediately after his marriage he went with his wife to the State Fair at Auburn, and while there purchased a patent washing machine, and, not unnaturally, in speaking of the same to his wife, he referred to his own invention and described the same to her. (Q. 6, p. 47.)

After they moved to Cairo, Johnson, in the intervals of time which he had from working on his farm, which intervals were necessarily rare, continued to perfect his invention. His idea was not only to provide for expansion and contraction on railroads and metal roofs, but to so construct the roofs themselves that they might be better adapted to his adjustable fastener, and he continued his experiments until he had succeeded in so doing, as will be seen by referring to his first application for a patent. (Pp. 208 to 219, Appellants' Proofs.)

He here combines several inventions with the adjustable fastener, all having reference indeed to the same subject matter, but containing more than one invention, as the Patent Office points out, and Johnson was directed by the Office to elect which of those inventions he would claim under that application. (P. 209, fol. 413.)

Johnson had imagined that, inasmuch as all these inventions had direct bearing one upon the other, and as the one followed the others in natural sequence in his mind, he could embody all the claims in one application, and obtain a patent therefor. (Q. 175, p. 64.)

Mr. Johnson's answer to cross-question 164, page 63, Appellants' Proofs, is so clear and specific as to his action in regard to his inventions, that we insert it in full, viz. :

"Q. What inventions, specify particularly?

"A. When I got my adjustable fastener perfected, so far as the fastener "was concerned, I discovered that it was necessary to have a slide or spring "at the edge of the roof, and also at the edges of metals, at all places where "it was to be used to allow for the contraction and expansion of the metal "at those edges, in order to have this adjustable fastener practicable for "use on metal buildings, roofs and so forth, at the edge of the roof, which "required a cornice and gutter, and also a spring to accommodate the con-"traction and expansion of the roof and siding at that point; therefore, I "invented a cornice and gutter altogether, that would connect the siding "and roof and prevent the water from running over the gutter and setting "back under the roof and running down to spoil the walls below. It also "formed a spring to accommodate the contraction and expansion of the "roof and siding, and kept the wind from getting under the roof, attach-"ing the roof and siding together, so that the roof could not get off with-"out drawing the siding up over the frame or breaking some parts of the "cornice. I also invented a segment-formed ridge moulding, to be used "at the ridge connecting the two sides of the roof, and also invented seg-"ment-formed pilasters, to be used at the corners of the building, and "also inside cornice, to be used inside of the building, connecting the "ceiling at the corner, to form a spring to accommodate the contraction "and expansion of the ceiling at those points. Also all the other mould-"ings, door and window-casings for the same purpose, accommodating the "expansion and contraction of the metal at those points, and also to form "a nice finish to the building outside and in, give it an ornamental ap-"pearance, as well as to be a house that was adapted to my particular "mode of adjustable fasteners.

"After I had that done, I discovered that it would be a very difficult "matter to make that cornice and gutter, and all the mouldings that would "be required to make my adjustable fastener a practicable thing for use "on buildings, by hand.

"Therefore, I then went to work and invented a cornice machine, for "making cornice and gutter altogether while hot, and passing through "boiling oil, also for making all other mouldings that would be required "for use on metal buildings, so as to perfect a building that would be

" adapted to my adjustable fastener, so as to make the invention a practical
" and valuable invention to me and the public."

While all these developments of his invention may not be important in this case, they show clearly the direction in which the inventor was working. He appears to have been entirely ignorant as to his rights about obtaining a patent, and to have supposed that in order to secure all the benefits of his invention he must go on and develop other things, which would bring the fastener into use in all the locations in which he intended to apply it. However mistaken that idea may have been on his part, and he was mistaken, yet it explains very fully why he delayed making application for a patent until some twelve years after perfecting the adjustable fastener. When he applied for a patent, in 1857, he combined in his application all the devices he had invented. He described not only the adjustable fastener but also his cornice and gutter, and a machine for making the cornice and gutter. An inspection of that specification, with all its interlineations and erasures, and the marks of disapproval by the Patent Office, which it bears upon its face, will show conclusively that Johnson was proceeding entirely without advice or knowledge as to his rights in the premises, and was seeking to obtain a patent for all these things together as having reference to one invention, because he thought that was his duty and obligation.

When this application was properly rejected, (Rec., p. 209, fol. 413,) Johnson divided it into several applications; first, secured one patent for the adjustable fastener, which is here in controversy; and then obtained separate patents for the other devices.

Johnson, however, had not been idle in other directions; he was a poor man; his financial condition was exceedingly bad, (C. A. Johnson, p. 48, q. 21, and Asa Johnson, p. 55, q. 54,) but he endeavored to interest parties in his inventions, and made efforts to raise money to apply for a patent; (p. 55, q. 53;) he was unsuccessful for a long time, but finally succeeded in disposing of an

interest to William Higbie and Henry Link, about the year 1857, in conjunction with whom he made the application to which reference has been made, and to whom the original patent was granted.

A word or two in regard to the production of the model and bolt made by Johnson in 1843. After the conversation with his brother and Strong, and the showing of the model to them, Johnson states that he placed it on the plate under the eaves of the wood-house. (Q. 42, p. 54, Appellants' Proofs.) He says he put it there because he considered it a safe place, and that when he moved from Franklin to Cairo he did not think to take the model with him. In the Spring of 1876 he returned to Franklin, and asked his brother Griswold if he knew where it was. Griswold had seen it some fifteen years before, in the place where Asa had put it. (Q. 10, 11, 12, 13, p. 43, Appellants' Proofs.) He is corroborated upon this point by Ira Strong. (Q. 10, 65, Appellants' Proofs.) Griswold informed Asa of the fact, and they went to the wood-house and found the model under the eaves, in the place where Griswold had returned it after he had taken it out some fifteen years before, and shown it to Ira A. Strong. He says he then placed it in a little more secure place, a little more out of sight than when he found it. (Q. 37, p. 45, Appellants' Proofs.) At that time the model had two bolts, but on one the nut was loose, and it has been lost. (P. 57, q. 74, 75.) Between the year 1843 and the time that Asa Johnson returned to see if he could find this old model, he had only been there once, in 1856, and then only remained a very short time; (p. 56, q. 67, 8–9;) at that time he did not see the 1843 model. (P. 56, q. 70.)

There was nothing extraordinary in the fact that Mr. Johnson left the old model under the roof of the wood-house, as he shortly after made the second model, of which he has testified, which was also to be used for connecting railroad rails, and hence, there was no necessity for him to have possession of the first one also;

(q. 60, p. 56, Appellants' Proofs;) and this is the model referred to by Mrs. Johnson in her testimony, (q. 18, p. 48, Appellants' Proofs,) her description showing that it was similar in construction to "Johnson Model, 1843," in evidence herein. Mrs. Johnson says that she saw this last model shortly after they moved to Cairo, (xq. 25, p. 46, Appellants' Proofs,) which corroborates Johnson's statement that he made the model either before or just after he moved to Acra, (q. 60, p. 60, Appellants' Proofs.)

The fact also that he had in his possession the various drawings of which he has testified, and which are marked pages 104 and 105 of the Record, would indicate that he did not consider the possession of the "Johnson model and bolt, 1843," important at that time.

We have thus shown that Johnson conceived his invention some three or four years before he came of age; that in 1843 he reduced it to a practical shape as far as its application to railroads is concerned; that he went on perfecting the invention, so that it might be used in any and all other places where accommodation for the natural contraction and expansion of metals subjected to heat and cold is required; that he also conceived the idea, in connection with his adjustable fastener, of a cornice and moulding to be used on metal roofs; that he embodied all these inventions in one application, and was directed by the Patent Office to elect which of the claims he desired to patent; that he selected the adjustable fastener, as set forth in the patent on which this suit is brought; that he was a poor man; that he was growing deeper in debt every year; that he endeavored to raise funds and interest parties in his inventions; that he was unsuccessful for a time, but finally he did succeed, and then used all due diligence in pushing his claims before the Patent Office.

The defence has laid great stress upon the lapse of time between the date of this invention and the applica-

tion for a patent therefor, insisting that it involves the abandonment of the invention.

In this case the reasons operating on Johnson's mind fully explain the delay, and show clearly that, not only did he not intend to abandon the invention, but that, on the contrary, he was diligently proceeding, after having perfected the adjustable fastener, to perfect those subsidiary and subordinate inventions which he deemed necessary for the putting of that adjustable fastener, which he regarded as the foundation and corner-stone of all his inventions in this line, into general use.

In a controversy between a patentee and parties who are alleged to have been prior inventors to him, or to have had a prior knowledge or use of the invention, it is clearly settled law that the inventor may refer back to the date of the embodiment of his original conception in practical shape.

In Draper *vs.* Potomska Mills Corporation, Judge Shepley held that "when a patent is assailed for want of "novelty, sketches and drawings may be resorted to to fix "the date of inceptive invention, and if there has been no "unnecessary delay subsequently in adapting the inven- "tion and applying for a patent, the protection of the "patent will be carried back to the date thus established." (13*th Pat. Off. Gaz.* p. 276.)

"After invention perfected, long delay in applying for "a patent will not defeat the inventor's rights, it being "clear from the attendant circumstances that there was "no intention to abandon, and no abandonment, in fact, "of the invention." (Sprague & Parsons *vs.* Adriance & Platt, 14*th Pat. Off. Gaz.* p. 308.)

In the case of Brown against Guild, (23 *Wall.* 181,) the inventor was allowed to claim the time of making his small model as the date of his completed invention, so as to anticipate others who were experimenting with machines.

"The invention is the conception of the idea, not its "final development; the law does not mean by invention "maturity." (Adams *vs.* Edwards, 1 *Fisher*, 1.)

"The date of the invention is the date of the discovery " of the principle involved, and the *attempt to embody* " that in some machine; not the date of perfecting of " the instrument." (Colt *vs.* Mass. Arms Co., 1 *Fisher*, 108.)

" If the invention was perfected, or, if not perfected, " if the inventor used reasonable diligence to perfect it, " then he had a right to have it incorporated into his " patent, *and to supersede those who had intervened* be- " tween his first invention or discovery, and his subse- " quent taking out of his patent." (Johnson *vs.* Root, 1 *Fish.* 351.)

"The date of invention is the time when the patentee " conceives the idea of doing the thing in substantially " the way in which he patents it." (Woodman *vs.* Stimpson, 3 *Fish.* 98.)

" It is wholly immaterial to the validity of the patent, " whether an invention was long antecedent to the ap- " plication for a patent or directly preceded it." (Wilder *vs.* McCormack, 2 *Blatch.* 31.)

See, also, Andrews *vs.* Carman, 9*th Pat. Off. Gaz.* p. 1011.
Russell & Erwin *vs.* Mallory, 5 *Fish.* 641.
Agawam Company *vs.* Jordan, 7 *Wallace*, 583.
Reeves *vs.* Keystone Bridge Company, 5 *Fish.* 456.
O'Reilly *vs.* Morse, 15 *How.* 62.

That Mr. Johnson never abandoned his invention, and never had any intention of so doing; that he devoted much time to perfecting it, and putting it into the very best form in which, as he believed, it would be beneficial to the public at large, is clear from all the evidence in the case touching this point.

That Mr. Johnson never had knowledge of the use of any machine similar to that which he invented, and never consented to any such use, (if any there were,) from the time of his invention in 1843 to the time of the

granting of the patent, is apparent from his own testimony. (Q. 76, p. 57, Appellants' Proofs.) That there never was any such use, we shall be able to show as we examine the defendants' proofs in regard to alleged prior structures.

We claim, therefore, that Mr. Johnson is entitled to refer back to his original structure of 1843 as the date of his invention. That was a perfect structure in its adaptability to railroads, and is the best form of using his invention in that connection. A comparison of this model with the infringing structure will show that, with the exception of the bottom plate, they are almost identical in form.

In the Court below great stress was laid by the appellees, to the practical abandonment of all other issues, on the claim that the original patent, so far as it covers or is claimed to embrace and cover such an adjustable fastener as applicable to railroads, is null and void; and this theory is urged on the ground that in said patent Johnson made no reference to any use of his invention upon railroads, and did not include in his description or drawings any structure similar to or resembling the device made in 1843.

It may well be questioned whether there can be such a thing as the abandonment of a particular *use* of an invention, especially in a case like the present WHEN THE PATENT EXPRESSLY CLAIMS ALL USES.

The law is explicit to the effect that if the first *inventor* has not abandoned the *invention*, not a particular use of it, he is entitled to a patent, that is, *to the exclusive use of his invention for all purposes.* (*Rev. Stat.*, sec. 4,886.)

But, irrespective of this question of law, the fact is clearly established that Johnson did not abandon any use of his invention. It is claimed that he did so, because he laid the first model, made in 1843, aside; but he made drawings of the same device in 1845, and it is in evidence that he made another model of the railroad

joint about the time he moved to Acra, in March or April, 1847, (p. 55, q. 48; p. 56, q. 60.) It is also urged, that the law requires the inventor to state "the principle of his invention, and the *several modes* in which he contemplated the application of that principle."

The principle of an invention is the method of its operation, and the modes of application of the principle are the different mechanical devices which embody the same invention.

In the present case, Johnson, in the original patent, described one form of the invention, that is one mode of applying the principle of the invention, in which the slotted side plates were so far apart as to permit motions in all directions, and another form, or mode of applying the principle of the invention, in which the flanges or side plates were made "to fit up close to the sides of the studs, allowing them to move in but one direction." Rec., p. 201, fol. 394.) The inventor thus fully complied with the law.

If there had been any other mechanical device which would have embodied the principle of this invention, such as, for instance, merely cutting away the metal in one of the materials to be fastened, around a stationary pin or bolt passed through the other material, so as to permit the two to adjust themselves with reference to each other, it would have been Johnson's duty to state such other mode.

But there was no such other mode, and there is no mode of applying the principle of Johnson's invention, except by taking the adjusting bolt and slotted side plates which he invented, with all their beneficial qualities, in one or the other of the forms which he specifically described, *i. e.*, with the side plates either apart, to permit motion in all directions, or fitting up close, to prevent motion except longitudinally.

But, if the Act of 1836, under which the original patent was issued, had required the inventor to state the different "uses" to which his invention was appli-

cable, and he had failed to do so "by inadvertence, accident or mistake," the defect was clearly remediable by re-issue. There is nothing in the act which renders an error of this kind more incurable than any other; and the fact that it arose from "inadvertence, accident or mistake" is conclusively settled by the Commissioner's action in granting a re-issue.

But at the time of granting the re-issue in the present case, in 1872, the act of 1836 was no longer in force, and the act of 1870, and the Revised Statutes required the patentee to state only "the best mode." This he has done, even if "mode" be deemed to be synonymous with "use." The use of the fastener as applied to the roofs of buildings, was not only the most important to the inventor's mind, but was manifestly also the "best" for the purpose of illustrating the invention, for it showed the capacity for adjustments in all directions, whereas, when used as a rail fastening, adjustability in only one direction is shown.

It may, perhaps, be said that he did not attach so much importance to the use of this fastener on railroads as *subsequent* events show that he might have done, but, although he may have erred in this respect, it does not affect the rightfulness of his present claim; it is not at all probable that any one foresaw in 1843, or even in 1857, the enormous importance that railroads would attain in 1872.

Johnson expressly stated in his original patent that *he intended to use his invention as general fasteners where it is necessary to allow for the contraction and expansion of the material used, not confining himself to buildings only.* (Rec., p. 200, fol. 393.)

Plainly, therefore, he complied fully with the law. He was not bound when he obtained a re-issue under the law as it then was and now is, to rectify defects which had existed under a prior act, which had then been repealed.

In Roberts *vs.* Ryer, 1 *Otto*, 151, it is held that the in-

ventor of a machine is entitled to the benefit of all the uses to which it can be put, no matter whether he had conceived the idea of the use or not.

"A patentee is entitled to all benefits which result "from his invention, whether he has specified all ben- "efits in his patent or not." (California Artificial Stone "Paving Company *vs.* Perine, 20*th Pat. Off. Gaz.* p. 813.)

(B.) Construction of the Re-Issued Patent.

In the light of the history of Johnson's invention we now come to the consideration of the construction of the re issued patent, No. 4,870, dated April 16th, 1872. It will be seen that the patent is designated as being for "Improvement in fastening sheet metals to roofs," but that the patent is not limited in its scope to such purpose only is apparent from the following sentence in the re-issued patent, to be found at page 203, fol. 402, of the Record :

"I contemplate using my invention as a general fastener where it is "necessary to allow for the contraction and expansion of the material used, "not confining myself to buildings only."

And also in the words of the first claim, "for fastening metals *in any* "*and all other places* where the contraction and expansion demand an ac- "commodation."

It is submitted that these words are very general, but they should be construed with reference to the subject and the place where they are employed. The character of the device shows that it is intended to fasten metals together so as to permit their movement in a horizontal direction by sliding between the side plates, while all resistance and strain in a vertical direction is prevented by the adjustable bolt, which slides in the slotted side plates.

It will be noticed, also, that this is not a patent to allow contraction and expansion, as appellees seem to have imagined, but is for a device or a combination of devices for fastening metals, and to accommodate their *natural* expansion and contraction when subjected to atmospheric

influences. Thus Johnson, at the outset of his specification, says:

"I have invented a new and useful mode of self-adjusting fastenings "for fastening metallic coverings to buildings, and for use in any and all "other places where metals require fastening, and their expansion and "contraction require accommodation."

Mr. Johnson goes on to say:

"The principle of my invention consists in connecting the metal to be "fastened with a bolt or pin arranged to slide in slotted bearings in the "direction of expansion or contraction, said adjustable bolt and its bear-"ings being combined with the materials to be fastened.

"I have found my adjustable fastener peculiarly useful in fastening "metallic roofs to buildings, and I proceed to describe its construction and "use in that connection, from which other uses will be obvious."

(See re-issued patent, Rec., p. 202, fol. 399.)

As we have already observed, (page 19,) the device is illustrated as applied to buildings, because in this application provision was demanded for contraction and expansion in all directions, whereas the application of the device to railroad rails, which we have shown to be the first conception and application of the invention, provision for expansion and contraction was required in one direction only.

The second claim of the re-issued patent evidently refers to the other obvious uses which the patentee refers to in the sentence last quoted; it is as follows:

"2. I claim, in combination, the adjusting bolt and slotted side plates, "suitably connected to and combined with the materials to be fastened to-"gether, for the purpose of accommodating the expansion and contraction "of such materials, with reference to each other, substantially as specified."

(In the original re-issued patent, as printed on page 204, it will be noticed that the word "with" is repeated on the first and third lines of the claim as printed, which is so manifestly a clerical error that we would not have referred to it but for the fact that the defendants' counsel asked some questions of complainants' expert in regard to such error. (Rec., pp. 82, 83, xq. 28–32.)

The Court below has sustained this opinion, and reads said claim as printed above. (Rec., p. 222, fol. 439.)

The design of the inventor was to provide a means of fastening metals together in such way that their natural contraction and expansion, when subjected to atmospheric influences, would be compensated for, and might be repeated continuously and automatically, without rupture and without destruction of the parts.

There are three elements in the combination described in the specification, and claimed in the second claim of appellants' re-issued patent, namely, two slotted side plates upon the opposite sides of the materials to be fastened together, and an adjusting bolt or its equivalent, so arranged that expansion and contraction can take place between the two members of the structure to be held in working position.

The bottom plate, which is referred to so often by defendants' expert, Mr. Renwick, as being an essential element of the combination claimed in the second claim of the re-issued patent, is not so considered by the patentee, as the specification and claims of the re-issued patent clearly show. At page 203, fol. 400, Appellants' Proofs, is the following paragraph: "5 is a bottom "plate used as a *convenient means* of attaching the "side plates to the wooden sheathing of the building;" but this bottom plate, while it is convenient and probably advantageous, is by no means essential, as the bolts or fasteners passed through the slotted side plates and the holes in the materials to be fastened together, perform the same functions as the bottom plate, and the difference is only in the degree of strength of the structure after it is thus connected.

In reality, as we have already observed, (page 13,) the bottom plate and the side plates are one, and the effect of separating the bottom plate from the side plates is only to weaken the structure; it does not in any way affect the operation of the device, nor does it alter the func-

tions of the adjustable bolt and slotted side plates, which are the material elements of the invention.

Nowhere in the patent does the patentee attach any importance to the use of the bottom-plate, except in so far as it is "a *convenient* means of attaching the side "plates to the wooden sheathing of the building." In the second claim of the re-issued patent he claims, "in combination, the adjusting bolt and slotted side "plates, *suitably* connected to and combined with the "materials to be fastened together." He points out in his specification the most *convenient* means of connecting the side-plates, namely, by the use of a bottom plate, but leaves it to the constructor to determine whether that is the *suitable connection* necessary in the particular structure on which he is engaged.

In regard to the connecting stud, the re-issued patent says that it is the means by which the roof is connected to the adjusting bolt or pin; and, obviously, as the invention is described and illustrated in the patent, it is necessary to provide a projection from the roof downward that may connect it with the adjusting bolt, since it would be impossible to put the roof itself between the side plates.

The appellees' expert, Mr. Renwick, endeavors to make this stud also an essential element of the combination claimed in the second claim of the re-issued patent. This is not in accordance with the facts. The stud is permanently attached to the roof, and is practically a part of the roof, and as described in said re-issued patent represents one of the materials to be fastened.

It is manifest, then, that the essential elements of the combination described in said re-issued patent are, as above stated, three, and it will be useful to note their respective functions.

There are, first, the two slotted side plates. These have several functions.

(*a.*) They form the *parallel bearings* in which the ad

justing bolt works, and ensure the self-adjustability the fastener. The use of *two* bearings, one on each side of it, makes the sliding movement easy, and relieves the bolt from the liability of binding and jamming, which would exist if a single bearing only was used; and also adds greatly to the strength or resisting power of the adjusting bolt.

(*b.*) They are side *plates*. This implies that they have dimensions adequate to perform their functions, and that they have sufficient size and surface to permit one of the materials to be fastened together, to be firmly attached to them. They cannot be, therefore, a mere "washer" or head of a bolt, as is urged by appellees' expert.

Another function implied by the name "side plates," is that they have a firm "*lateral sustaining action.*" They form a strong support, which prevents side motion in the material to be fastened in the case expressly provided for in the patent in the following words:

"*When the movement is only sensible in the direction* "*of the slots*, THE SIDE PLATES ARE MADE TO FIT UP "CLOSE."

The utility of two side plates, instead of a bolt in a single bearing, is fully proved by Mr. Eliot, (Rec., p. 79, fol. 159,) and admitted by the appellees' expert, Mr. Renwick, who says, (Rec., p. 170, fol. 335:)

"If two flanges should be put in close contact with an article, and at its "opposite sides, they would undoubtedly tend to confine it more than a "single flange would."

See, also, Rec., p. 176, fol. 346; p. 178, fol. 351; p. 184, fol. 361.

There is, second, the adjusting bolt. This is one of the members to which one of the materials to be fastened together, is attached. It has its bearings at each end in

the parallel slotted side plates, and moves in the slots with an easy motion.

Its office is to form the vertical support for one of the materials, so as to firmly prevent upward and downward movement, while permitting such material to move freely, as required by its contraction and expansion.

It is to be specially noticed that this patent is for an adjustable fastener; that is, that the device described and claimed is something *detachable, different and separate from the materials to be fastened together*. In the second claim the two materials are brought into combination with the elements which peculiarly form the fastener, but the fastener itself is something separate and distinct from the materials. THE MERE MAKING TWO MATERIALS ADJUSTABLE WITH RESPECT TO EACH OTHER, IS NOT APPLYING TO THEM A SEPARATE ADJUSTABLE FASTENER IN THE SENSE OF THIS PATENT.

The Court below has accepted the construction of said re-issued patent which we have just contended to be the correct one, and declares that it disposes of the question of infringement, it being conceded that the use of the fish-plate joint would be an infringement of the re-issued patent, so construed. (Rec., p. 222, fol. 439.)

C. The defences interposed below may be briefly grouped under the following head:

1. The Moncure Robinson patent and analogous structures, as follows:

(*a.*) The Moncure Robinson patent.
(*b.*) The compound rail, so called.
(*c.*) The Boston and Lowell railroad rail.
(*d.*) The New-Castle and Frenchtown rail.
(*e.*) The Oswego and Syracuse rail joint.
(*f.*) The Mobile and Ohio rail.

2. The alleged provision on locomotives for expansion and contraction of the boiler on the frame.

1. The Moncure Robinson patent and analogous structures:

In each one of the structures we have thus named (*a.*, *b.*, *c.*, *d.*, *e.*, *f.*,) we find the essential elements claimed in appellants' re-issued letters patent, to wit, the slotted side plates and the adjustable bolt, wanting.

We have already, in construing the re-issued patent, (p. 34,) demonstrated that the two side plates forming the *two opposite parallel bearings of the adjustable bolt, ensure the easy and ready adjustment required by the structure;* unless the fastener is self-adjusting, *i. e.*, automatic, as is the one Johnson invented, it is useless. The fact that the several structures named, *a.*, *b.*, *c.*, *d.*, *e.*, *f.*, have one and all been abandoned, is sufficient evidence that they were not automatic nor self-adjusting.

In the case of Parker *vs.* Hulme, (1 *Fish.* 49,) the Court held that duplication of parts producing a new and useful result, may be patentable. *It is often the material part of a discovery, because it may be that which renders useful what was previously useless.*

See, also, Brett *vs.* Telegraph Co., (70 *English C. L.* 882.)
Forbush *vs.* Cook, (2 *Fish.* 668.)

2. *The alleged provision on locomotives for expansion and contraction of the boiler on the frame.*

The device described by the witnesses as being used on locomotives differs from the combination described and claimed in appellants' re-issued patent, in that it does not contain the elements of the adjustable bolt and two slotted side plates, suitably connected to and combined with the materials to be fastened together;

and, also, in that no fastener, in the sense of the self-adjusting fastener described and claimed in appellants' re-issued patent, is shown to have existed at all in either of the devices shown to have been used on locomotives. As we have stated on page 35, one of the distinguishing features of Johnson's invention is that the fastener is something detachable, distinct and separate from the materials to be fastened. In the devices now under consideration the only fastener shown is a stationary bolt. The materials to be fastened are placed one on the other, (for the foot of the cylinder is permanently attached to the boiler, and the angle iron also is permanently attached to the boiler, and, practically, each is part of the boiler and one of the materials to be fastened,) and arranged to slide one on the other. The testimony shows that they are kept in place, that is fastened together, by bolts firmly fixed in the frame, (one of the materials to be fastened,) which bolts pass through holes in the foot of the cylinder or in the angle iron, (the other material to be fastened,) and are secured; and the expansion and contraction of the boiler is provided for by cutting away the metal in the foot of the cylinder or in the angle iron, so that it shall not strike against the stationary bolts fixed in the frame.

Manifestly, in this arrangement there are no equivalents for the device of a self-adjusting fastener, composed of an adjustable bolt and slotted side plates, separate and distinct from the materials to be fastened, which is described and claimed in appellants' re-issued patent.

The appellees have produced, in illustration of the device used at the Rogers' Works, a wooden model marked "Exhibit C.," which is declared by their expert, Renwick, (Rec., p. 177, fol. 349,) to be a substantial representation of the provision for expansion on locomotives represented in the drawings marked pages 299, 318 and 319.

A simple inspection of this model will demonstrate

the arrangement we have just described, and will show that the angle iron can move no further than allowed by the stationary bolts, and that the cap piece and frame do not in any sense perform the functions of the slotted side plates described in appellants' re-issued patent.

THIRD POINT.—The decree of the Circuit Court should be reversed for the errors argued, and a decree made confirming the validity of the re-issued patent No. 4,870.

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ISRAEL MINOR, Jr.,
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THOMAS BRACKEN,
BENJAMIN F. BUTLER,
Counsel.

OFFICE SUPREME COURT U.S.
FILED
MAR 6 1882
JAMES H. McKEEN

SUPREME COURT OF THE UNITED STATES.

October Term, 1881.—No. 245.

ASA JOHNSON AND THOMAS S. SANDFORD,
Appellants,

v.

THE FLUSHING AND NORTH SIDE RAILROAD COMPANY.

ARGUMENT FOR APPELLEE

BY

ANDREW McCALLUM,
Of Counsel.

Supreme Court of the United States.

ASA JOHNSON AND THOMAS S. SANDFORD,
Appellants,

vs.

THE FLUSHING AND NORTH SIDE RAILROAD COMPANY,
Appellee.

No. 245.

Oct. Term, 1881.

Statement of the Case.

This is a suit brought by appellants for alleged infringement of REISSUED Letters Patent No. 4,870.

The original patent, dated May 19, 1857, was granted to Asa Johnson, William Higbie and Henry Link, for

> "a new and useful improved mode of fastening sheet metal on roofs," &c (p. 199).

At the expiration of the original term of the patent—fourteen years—an extension of seven years was granted to Asa Johnson, who subsequently assigned two-thirds interest to Thomas S. Sandford.

About fifteen years after the date of the original patent, Johnson and his assignee, Sandford (the appellants) surren-

dered the patent and obtained the reissue on which the suit is brought.

The claim for infringement arises through the use, by the appellee, of what is commonly known as the "*fish-plate joint*" for uniting the ends of railroad rails, which consists simply of two plates of shape and size to fit the "web" (the central portion between the head and base of the rails), said plates being fastened one on each side of the ends of two adjacent rails by means of bolts and nuts, the bolts passing through holes formed in both the plates and rails. The holes in the fish-plates or in the rails are made larger than the bolts, or of oval or elongated form, so as to permit the rails to expand and contract without injury to the joint.

The decision of the Circuit Court was to the effect that the reissued patent was void, it not being for the same invention as that for which the original patent was granted.

The other questions, abandonment, prior knowledge and use, &c, were not passed upon by the court.

Assignment of Errors.

Appellants assignment of errors, however, is of so general a nature as to bring up all the questions in the case, and the issue therefore includes the following questions:

The Issue.

1. Was the patent reissued according to law?

2. Was the patentee, Johnson, the first and original inventor of what is claimed by said reissued patent?

3. If he was the first inventor, did he not abandon his invention to the public?

4. Has the defendant infringed said reissued patent?

Argument.

The first question to be determined is whether the court below erred in deciding that the reissued patent was void, as not being for the same invention described in the original patent.

It is the main question at issue, and, should this court decide that there was no error in this conclusion, consideration of the other questions is unnecessary.

On referring to the opinion of Justice Benedict (pp. 221–226), it appears that the conclusion was reached for reasons which may be briefly stated as follows :

That the alleged infringement lay in the use of a rail joint, which consisted of—

> " two plates, fastened one on each side of the two rails, to be connected together and bolted by means of bolts passing through the rails and through slots in the plates " (p. 221, mid.).

That the proper construction to be given to the second claim of the reissued patent (the only one in issue) was that it covered a combination, the elements of which are—

> " two pieces of material, to be fastened together ; two slotted side plates, to furnish bearings for the adjustable bolt, and also to serve as clamps on opposite sides of the materials to be fastened together ; an adjusting bolt, to hold said clamping plates in position thereon " (p. 222, mid.).

And that said construction was necessary for the complaints' case to establish infringement by the "*fish-plate joint*" used by the defendant.

That, on comparing the reissue with the original patent, the original was found to be for a different device, *i. e.*, a fastening device, consisting of a combination of the following elements :

> "the stud, the flanges, the bottom plate, the adjusting bolt ' passing through the stud,' and capable of moving in the slots in the flanges " (p. 223, top).

And that the "*stud*" and "*bottom plate*" were essential elements of the combination, that could not be omitted, as contended on behalf of complainants.

That in the reissued patent a change in the phraseology had been adopted in speaking of the "*stud*" and "*bottom plate*," FOR THE PLAIN PURPOSE of eliminating said stud and the bottom plate from the combination.

In this regard, Justice Benedict says:

"These changes and additions made in the reissue, as understood by the plaintiffs, are not mere corrections whose effect is to render accurate and specific what was before uncertain, but they work an essential alteration of the specification, and effect the elimination from the combination of two elements—the stud and bottom plate—which, before that, were described as essential elements of the combination secured.

"The character of these changes tends to confirm the conclusion that the original patent is correctly interpreted when it is held to include the stud and bottom plate as essential elements of the invention secured.

"The invention intended to be described and secured by the original patent is a combined device, constructed in two members, so connected together by means of the bolt and its slotted bearings as to permit a change to a limited extent in the relative position of the two members with reference to each other. This device is to be inserted between the two materials to be fastened together, a connection of those materials being formed by fastening the adjusting-stud to one, and the flanged-bottom plate to the other.

"In the reissue, as it must be understood in order to sustain the charge of infringement, the stud forms no part of the fastener, but has become a part of the material to be fastened, and the side plates not only furnish bearings for the bolt, but perform the additional important and essential function of furnishing a strong lateral support to the materials by clamping the same between them.

"In the original the language, plainly importing, as it does, that the stud is an essential part of the fastener, and not part of the material to be fastened, excludes the idea that

the flanges are in any case to furnish lateral support to the materials to be fastened, or to clamp the same.

"It is thus seen that the essential elements of the combination described and sought to be secured by the reissue are different from the essential elements of the combination described in the original, and that the result produced by the combination described in the reissue is different from that produced by the combination described in the original patent.

By these changes a substantial change in the subject matter has been accomplished, and upon established principles the conclusion must follow that the reissue is void."

That this conclusion is correct, and in accordance with the law, will be manifest on a comparison of the original and reissued patents, and with the rail joint used by appellee.

For the purpose of illustration, cuts of the devices referred to in the opinion are here reproduced.

Fig. *A* (Complainant's Exhibit No. 2) represents the fish plate joint used by appellee, and which is claimed to infringe the patent.

Complainant's Exhibit No. 2. Claimed to infringe Reissued Patent.

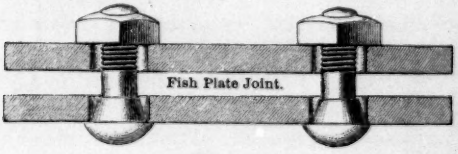

Fig. A.

The rails which the joint is intended to unite are not shown in this exhibit, but it is obvious that the device consists of the two plates connected together by two bolts, which pass through oval or elongated holes in the plates, and when attached to the rail the plates clasp or clamp them together.

With the rails in position a cross section of the joint presents the appearance shown by the cut Fig. *B*,

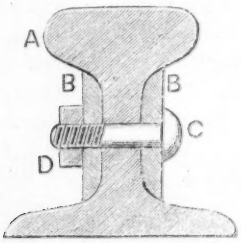

Fig. B.

FISH PLATE JOINT IN CROSS SECTION.

A, the rail.
B, *B*, slotted side plates.
C, bolt.
D, nut.

and will be found to embody a combination of the elements referred to by Judge Benedict as necessary to complainant's case. That is, in addition to the two pieces of material to be fastened together, two slotted side plates to furnish bearings for the adjustable bolt, and also to serve as clamps on opposite sides of the materials to be fastened together, and an adjusting bolt to hold said clamping plates in position.

Fig. 3.

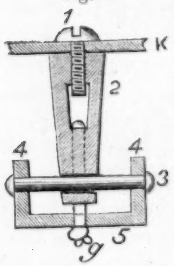

Fig. 4.

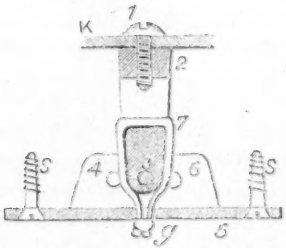

Fig. C.

JOHNSON'S FASTENING FOR METAL ROOFS, &c.

Fig. C represents the fastening device shown and described in the original patent, the cut being a *fac-simile* of

figures 3 and 4 of the patent drawing, which are referred to in the original specification as follows: "Fig. 3 is an end elevation of the self-adjusting fastener."

Fig. 4 is a side elevation of the same.

In the original patent this device is fully and clearly described; the stud marked 2 is secured at one end to the metallic portion of the roofing marked *k* by the screw marked 1. The bottom plate, marked 5, with its flanges 4 4 is described as fastened to the wooden portion of the roof by means of the screws marked *s s*, and it is attached to the lower portion of the stud by the bolt marked 3, which passes through the stud and the flanges of the bottom plate.

The stud is also fastened to the bottom plate by means of a rubber cord marked 7, the ends of which are fastened at the point marked *g*.

This rubber cord fastening is not included as an essential element of the combination by Judge Benedict, but is merely referred to as something which may be used.

There is no suggestion, however, in the original patent that it may be dispensed with.

The description of the operation of the device as contained in the original patent is as follows:

"In the operation of my invention, after sheeting the roof, if the boards do not exceed an inch in thickness, or thereabouts, I bore a hole at the point where I wish to insert the stud, about the size as seen in the vertical dotted lines in Fig. 2.

The holes may be made larger or smaller to allow for contraction and expansion, so that the studs can move freely in any direction required. The bottom plate is then screwed firmly to the boards by the screws *s s*, seen in Figs. 2 and 4, and the screw 1 passes through the metallic covering into the stud 2, thus firmly fastening the covering *k* to the stud, as seen in Fig. 2. It will be further seen that the cord 7 passes through the stud 2, Fig. 4, and then through the bottom plate, and is fastened together, as at *g*, in said figure, thus always keeping the stud in an erect position until attached to the metal.

If the covering contract on a line parallel with the connecting pin *s* (3), the adjustable connecting stud 2 will move

on it towards one of the flanges 4; when it expands, it will move towards the opposite flange, thus moving towards the point of contraction and from the point of expansion with the metallic covering."

Fig. *D* shows the device secured to the roof as described.

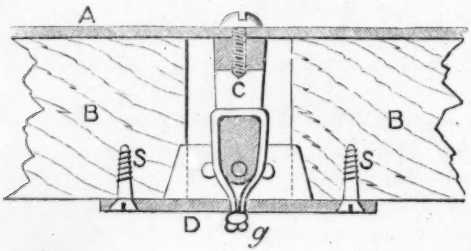

Fig. D.

JOHNSON'S FASTENER ATTACHED TO ROOF.

A, metal roofing. *C*, stud.
B, wooden sheathing. *D*, bottom plate.
g, fastening of rubber cord.

Nowhere in the specification is it indicated or suggested that either part of the device here described can be dispensed with; the only modification suggested being that as a matter of necessity some of these fasteners require to have the flanges fit up close to the sides of the stud.

Justice Benedict dealt very liberally with the patent in not including the rubber cord as an essential element of the combination; particularly when the claim of the patent was for "*the self-adjusting fastener as described.*"

But, be that as it may, he was certainly justified in holding that the stud and the bottom plate were essential parts of the device or combination of devices described.

It must be plainly obvious that in this device if we remove the stud we sever the connection between the two materials to be fastened together (the metal roofing and wooden sheathing), and the utility of the device is entirely destroyed.

Fig. *E* shows the device with the stud removed.

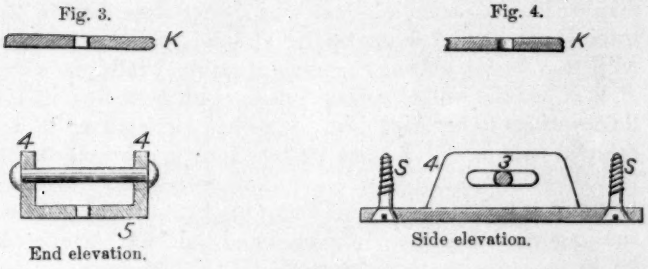

Fig. E.

JOHNSON'S FASTENER WITH STUD REMOVED.

Again, it is plainly evident that the bottom plate is also an essential part of the device as held by Justice Benedict as it forms the only means of attachment to the wooden portion of the roof or to one of the materials to be fastened together, and, without it, the device would be entirely useless. But to maintain appellants' case, as shown by the court, it is necessary to eliminate, not only the stud, but also the bottom plate, leaving nothing except the flanges of the bottom plate and the bolt 3, as shown by the cut, Fig. *F*, which is certainly not the self-adjusting fastening described and claimed in the original patent.

Fig. F.

JOHNSON'S FASTENER

With the stud and bottom plate removed, as claimed in the Reissued Patent.

It is, however, just what is claimed by the second claim of the reissued patent, which is—

"I claim, in combination with the adjusting-bolt and slotted side plates, suitably connected to and combined with the materials to be fastened together for the purpose of accommodating the expansion and contraction of such materials with reference to each other, substantially as specified."

It must be evident that the mutilated device shown by the cut Fig. *F*, and covered by this claim, could not be used in manner like the complete fastening device described in the original patent, and shown by Fig. *C*, and however well adapted it may be for uniting the ends of railroad rails, as in Fig. *B*, it is not the self-adjusting fastener for fastening metallic coverings to buildings, &c., described and claimed in the original patent. And when we take into consideration the fact that there is not in the original patent any reference to railroad rail joints or anything to indicate or suggest that the important features of the stud and bottom plate could be dispensed with, there seems to be no room for any other conclusion than that arrived at by Justice Benedict, and this from mere comparison of the two instruments—the original and reissued patents. The reissued patent is, on its face, void.

Authorities on Law of Reissuing Patents.

Justice Benedict, in the closing portion of his opinion, refers to the case of Gill *vs.* Wells, 22 Wallace, 1; 6 O. G., 881, in support of his decision, and shows that Herring *vs.* Nelson, 14 Blatch., 293; 12 O. G., 753, relied upon by appellants, is not in point and does not conflict with the rule laid down in Gill *vs.* Wells.

It is doubtless true that the several Circuit Courts have differed somewhat as to the construction of the statute which authorizes the surrender and reissue of Letters Patent (section 4916, Revised Statutes). But from the case of O'Reilly *vs.* Morse, 15 Howard, 62, down to the present time, the decisions of this court on the question of reissued patents appear to be all one way, and substantially in accordance with the rules laid down in Gill *vs.* Wells.

A reference to the following cases will establish this fact:

O'Reilly *vs.* Morse, 15 Howard, 62.
Burr *vs.* Duryee, 1 Wallace, 531.
Case *vs.* Brown, 2 Wallace, 230.
Seymour *vs.* Osborn, 11 Wallace, 516.
Carlton *vs.* Bokee, 17 Wallace, 463.

Gill *vs.* Wells, 22 Wallace, 1.
Union Paper Collar Co. *vs.* Van Deusen, 23 Wallace, 530.
Russell *vs.* Dodge, 3 Otto, 460.
Giant Powder Co. *vs.* California Powder Works, 8 Otto, 126.
Leggett *vs.* Avery, 17 O. G., 445.
Planing Machine Co. *vs.* Keith, 11 Otto, 479.
Swain Turbine Co. *vs.* Ladd, 19 O. G., 62.
Hopkins Co. *vs.* Corbin, 20 O. G., 297
Miller vs. Bridgeport Brass Co. 21 O.G. 201
James vs. Campbell 21 O.G. 337

These cases fully sustain the decision of Justice Benedict in this case.

It is not pretended on the part of appellants that the original patent was defective or invalid by reason of the inventor having claimed more than he was entitled to.

On the contrary, the whole record shows that the process of surrender and reissue was resorted to for the express purpose of making the patent cover a joint for railroad rails, which the inventor did not describe in his original patent.

Nor was the original patent inoperative or void by reason of a defective or erroneous specification or description of what the inventor did claim to have invented, as will be clearly manifest on referring to the instrument (pp. 199–201).

The specification begins with a preliminary statement showing the nature of the invention, viz.:

> "A new and useful mode of self-adjusting fastening for fastening metallic coverings to buildings," &c.

Then follows a description of the drawings:

"Fig. 1 is a side elevation of a building," &c.

Then is set forth a full, clear and exact description of the construction of the fastening and the method of employing the same.

There is no pretense that this description is not sufficiently full, clear and exact to enable a skilled mechanic to make and use the device.

That being so, there was no error or defect which brings the patent within the statute authorizing its surrender and reissue. On its face it was a perfectly valid patent, and was not therefore such a patent as is referred to in the statute as capable of being reissued under the law.

To make the patent cover the rail joint used by appellee, new matter has been injected into the specification in direct violation of law, and, as we have seen, the new claim introduced (the 2d claim) covers a different invention from that described in the original patent, and such being the case it is submitted that the court below committed no error in deciding that the reissued patent is void.

Lack of Novelty.

The next question to be considered is, whether Asa Johnson was the first and original inventor of what is claimed by the reissued patent. Justice Benedict did not think it necessary to consider this question, but if we must assume that the reissued patent was granted in accordance with law, then the question of novelty requires to be considered. It is not necessary to consider whether the complete fastening device, including the stud and bottom plate was a new thing when Johnson applied for his patent, as there is no pretense that the appellee has used any such device.

The only question to be determined in this respect is whether a device like the fish-plate joint, such as is shown by Fig. **B** herewith, and claimed to be covered by the 2d claim of the reissued patent, was new with Johnson.

Referring to the record (p. 216) we learn that the original application was filed in the Patent Office March 9, 1857, the oath of invention being dated February 28, 1857.

The original specification (pp. 210–216), in addition to the fastening device described in the patent, describes not only the roof but other portions of the building made of metal, such as pilasters, cornices, eaves, troughs, &c.

An objection was made by the examiner on the ground that it contained several distinct alleged inventions (p. 209, mid.), but it is worthy of note that a rail joint, such as is claimed by the reissued patent, or anything in the least

resembling it, is not described therein, and there is nothing contained in said original application which would lead any one to suppose that Johnson was the inventor of such device.

These two facts may therefore be noted:

First.—That the application was filed in the Patent Office March 9, 1857.

Second.—That the specification then filed did not describe a fastening device such as is claimed to be covered by the second claim of the reissued patent.

The depositions taken on behalf of appellee show that the principle of the alleged invention, that is, providing for the expansion and contraction of two pieces of metal united together by the use of plates having slots or bolt holes made larger than the bolts or fastening device, was known and used practically long prior to the date of Johnson's alleged invention.

In the construction of locomotives by the Baldwin Locomotive Works it was used as early as 1843.

Dep. of Charles T. Parry (pp. 134, 141).

By the Rogers Locomotive and Machine Works, and others, located at Paterson, New Jersey, as early as 1839 or 1840.

Dep. of Wm. Swineburne (pp. 153–157).

And a number of other witnesses testify to its use by the Rogers Locomotive Works from that time on.

See Depositions of John Cooke (pp. 157–160), Wm. S. Hudson (pp. 149–153), John Thompson (pp. 142–146), and Henry A. Luttgens (pp. 160–164).

Different applications of the same principle, prior to 1857, are given in the deposition of E. S. Renwick (pp. 197–199).

The record also shows that the same principle was applied to rail joints long prior to the application for the patent.

Strap Rail Joint.

As early as 1830, in what is known as the old flat or strap rail, used on the New Castle and Frenchtown Railroad in 1831. Depositions of Cowper (pp. 110–115) and Gordon (pp. 115–118).

On the Paterson and Hudson River Railroad from 1837 to 1845. Deposition of Hollingsworth (p. 148).

On the Utica and Schenectady Railroad in 1836, and between 1836 and 1838 on numerous other roads. Deposition of Hudson (p. 165).

New Castle and Frenchtown Rail Joint.

Another form of this rail fastening, "Defendant's Exhibit Newcastle and Frenchtown Rail," was used by the Newcastle and Frenchtown Turnpike and Railroad Company as a fastening for T rails as early as 1837. There can be no doubt about this fact, as the rails came from England in 1836, and were contracted for in 1835. The contract which is in evidence is dated (pp. 121–2), October 10, 1835, and the specification (p. 122) clearly describes the fish plate joint consisting of a plate to be riveted on each rail. The other end of the rails have an oblong hole and a bolt which is to pass through the oblong hole and washer, &c. Here the oblong hole is in the rail instead of in the connecting plate, but that difference is not material so far as the embodiment of the principle in a practical manner is concerned.

The bills of lading which are also produced (pp. 122–124), show that these rails and fastenings were shipped by the vessels *Isaac Hicks* and *Kutesoff*, and delivered at Newcastle in 1836 and 1837.

The laying of these rails in 1837, and their use for many years afterwards, is proved by the depositions of Cowper, (p. 110), Gordon (p. 115) and Dobbs (p. 118).

The exhibit itself was taken from a side track laid in 1848, which was made of the same kind of iron as the main track laid in 1837. An examination of the exhibit will show that it is practically the same as the rail fastener used by ap-

pellee, Complainant's Exhibit 2, and which is claimed to infringe the patent.

Oswego and Syracuse Railroad Joint.

Another form of this fastener device is shown by Defendant's Exhibit Oswego and Syracuse Rail Joint, which was used as early as 1848, and for some years thereafter.

This fact is established by the depositions of Truesdell (p. 125), Curtis (p. 127) and Murphy (p. 129).

The witness, Wilkinson (p. 132), saw a model of that joint in the winter of 1846–7, and the witness, Ricker (p. 105), saw it in use on that road (Oswego and Syracuse Railroad) in 1850, and knew of similar joints being used on other roads in 1858–59 and 1860.

Compound Rail Joint.

Still another use of the principle is illustrated by the construction of the compound rail, "Defendant's Exhibit Section of One-half of Compound Rail," which are proved to have been used on the Utica and Schenectady Railroad in 1850 (Ricker's Dep., p. 105).

They were made in large quantities by the Bay State Iron Company, at Boston, in 1853–4 (Reed's Dep., p. 94).

The Mobile and Ohio Rail Joint.

This joint, which was made with fish bar plates and bolts and with oblong holes punched in the rails, was made and used in 1855. (See contracts and correspondence, pp. 99–101.)

The Boston and Lowell Rail Joint.

This joint was made of a wooden splice bar, the bolt holes in the rail being elongated or oval shaped Depositions of Winslow (pp. 101–103) and Franklin (103–104).

Drawings of some of these rail joints are in evidence as part of the record, and will be found between the following pages : 96–97, 104–105, 106–107, 112–113, 166–167.

The last referred to shows the strap rail proved to be used as early as 1836.

Only one fish-plate was used, but the provision for expansion and contraction by the use of elongated holes is there shown.

The drawing of the Newcastle and Frenchtown Rail (p. (112-113) shows the application of the fish-plate to a T rail in 1836–7.

These two fastenings are almost as old as the railroad itself, and show that Johnson's alleged invention as covered by the reissued patent, was known and in public use when he was a boy—more than twenty years before he applied for his patent, and long before he claimed to have invented anything.

Appellant's expert says they are not the same as the Johnson fastener, because they only show fish joints or connecting plates on one side of the rail, while the claim of the patent necessarily includes two plates, one on each side of the rail.

This may be so, yet so far as any patentable invention is concerned it is there. The single plate with the enlarged or elongated bolt holes permits of the expansion and contraction of the rails without injury to the joint, and that is the only patentable feature of the device. The addition of another plate on the opposite side of the rail might be an advantage, but to use it requires no invention.

The use of the two fish plates is, however, proved to have been common long prior to the application for the patent, the Exhibit Oswego and Syracuse Rail Joint used in 1850, being sufficient evidence of this fact. How do the appellants endeavor to sustain their patent in view of this fact? Why by a very simple, though daring, expedient, viz. : by swearing that the invention was made in 1843.

But this brings us to the consideration of the question of abandonment.

ABANDONMENT.

The record shows that after the depositions on behalf of defendant showing the state of the art were taken, the alleged inventor, Asa Johnson, was put on the stand to swear that he invented the rail joint in 1843, before he invented the roof fastening device described in his original patent, and the witnesses Alanson Strong, his brother-in-law; Ira A. Strong, his nephew; Griswold Johnson, his brother, and Clarissa Amanda Johnson, his wife, are called to corroborate his statement. It was evidently a family secret, not made known until after the defense was all in.

We think this evidence is unworthy of credit; but supposing it to be all true, it has no bearing upon the case, for the reason that the rail joint, if it was invented by Johnson in 1843, was not described by him when he applied for his patent, nor was it described in the original patent granted to him. There is, therefore, no authority in law for claiming it in a reissued patent granted fifteen years after the date of the original patent.

On his own showing, he allowed a period of twenty-nine years to elapse between the date of his invention and the making of the same known to the public, during which period the invention had gone into general and public use on all the railroads in the United States.

In the Turbine Wheel case before referred to (Swain *v.* Ladd, 19 O. G., 62), his Honor Justice Bradley says:

"The mistake of the patentee or his assigns seems to have been in supposing that he was entitled to have inserted in a reissued patent all that he might have applied for and had inserted in his original patent.

"The appellants produced on the argument exhibits tending to show that the patentee, before obtaining his original patent, had made and done all those things which are embraced in or covered by the reissued patent. If this were true, it would be nothing to the purpose. A reissue can only be granted for the same invention which was originally patented. If it were otherwise, a door would be opened to the admission of the greatest frauds. Claims and pretensions shown to be unfounded at the time might, after the

lapse of a few years—after a change of officers in the Patent Office, the death of witnesses and the dispersion of documents—be set up anew, and a reversal of the first decision obtained, without an appeal and without any knowledge of the previous investigations on the subject.

"New light breaking in upon the patentee as the progress of improvement goes on and as other inventors enter the field, and his monopoly becomes less and less necessary to the public, might easily generate in his mind an idea that his invention was really more broad and comprehensive than had been set forth in the specification of his patent.

"It is easy to see how such new light would naturally be reflected in a reissue of the patent, and how unjust it might be to third parties who had kept pace with the march of improvement.

"Hence, there is no safe or just rule but that which confines a reissued patent to the same invention which was described or indicated in the original."

Language more apt--more directly applicable to the present case—could not well be chosen.

Johnson and his assignee, Sandford, have made the same mistake committed by so many inventors and owners of reissued patents whose cases have come before this court, viz.: supposing that the inventor is entitled to claim, in a reissued patent, all that he might have applied for and might have inserted in his original patent.

Justice Benedict, in the court below, endeavored to clear up the mistake and dispel the illusion which appears to have taken possession of the appellants, but they would not be convinced, or possibly they thought that this court might give a new construction to the law authorizing the reissue of Letters Patent. Some different construction from that given by Justice Grier, in 1863, in case Burr *v.* Duryee, 1 Wallace, 531; from that given by Justice Clifford, in 1870, in Seymour *v.* Osborne, 11 Wallace, 516; from that given by Justice Bradley, in 1873, in Carlton *v.* Bokee, 17 Wallace, 463; and again, in 1874, by Justice Clifford, in Gill *v.* Wells, 22 Wallace, 1; and in 1878, by Justice Bradley, in Giant Powder Co. *v.* Cal. Powder Works, 8 Otto, 126; and again, in 1879, in Leggett *v.* Avery, 17 O. G., 445, and in the Turbine

Wheel case, before quoted from; by Justice Woods, in case of Hopkins *v.* Corbin, decided May 2, 1881; and by Justice Bradley, in Miller *v.* Bridgeport Brass Co., and James *v.* Campbell, decided Jan. 9, 1882.

Under the rule established by these decisions of this court, Johnson has no right to claim by reissue what he failed to describe and claim in his original patent, even if he was the first inventor of what is claimed by the reissued patent.

In Leggett *v.* Avery the court appears to go even further than this, and questions the right of an inventor to claim by reissue what he *had described in his original application*, but had failed to obtain in the patent as originally granted. and even if he had claimed it in the original application, and been *refused* a patent for it, he has no right to reclaim it years after the patent has been granted when the public has been using it in the interval.

That view of the law appears to be supported by the remarks of the court in Sayles *vs.* Chicago and Northwestern R. R. Co., 15 O. G., 243; and again more fully in Woodbury Planing Machine Co. *vs.* Keith, 11 Otto, 479. In that case Justice Strong says:

"An inventor cannot, without cause, hold his application pending during a long period of years, leaving the public uncertain whether he intends ever to prosecute it, and keeping the field of his invention closed against other inventors. It is not unfair to him, after his application for a patent has been rejected, and after he has for many years taken no steps to reinstate it, to renew it or to appeal, that it should be concluded he has acquiesced in the rejection and abandoned any intention of prosecuting his claim further. Such a conclusion is in accordance with common observation. Especially is this so when, during those years of his inaction, he has seen his invention go into common use, and has uttered no word of complaint or remonstrance, or been stimulated by it to a fresh attempt to obtain a patent. When in reliance upon his supine inaction the public has made use of the result of his ingenuity, and has accommodated its business and its machinery to the improvement, it is not unjust to him to hold that he shall be regarded as

having assented to the appropriation, or in other words, as having abandoned the invention."

* * * * * * *

We are constrained, therefore, to hold that Woodbury's invention was abandoned by him before he obtained his patent."

If this is true of an inventor, who is guilty of *laches* in not using diligence in prosecuting his application in the Patent Office, how much more does it apply to an inventor who keeps an alleged perfected invention entirely hidden from the public for fourteen years before he makes any application for Letters Patent, and who entirely fails to describe it in the patent he does apply for, and who waits other fifteen years before making it known by a reissue of the patent, which was originally granted him for another invention.

That is Johnson's case by his own showing.

He says he perfected his rail joint fastening in 1843. He waited until 1857, fourteen years, before applying for any patent; meanwhile the alleged invention had gone into public use without objection on his part.

When he did apply for his patent in 1857, he did not say a word about his rail joint fastener. It was not described at all in his original application or patent.

He allows another period of fifteen years to pass before he takes a single step to assert his supposed right; during which time the alleged invention has gone into almost universal use on all the railroads of this country.

Did he not, therefore, abandon his first invention—the rail fastening—before he obtained his patent?

Did he not abandon it by failing to make any claim to it when he did apply for his patent?

Did he not abandon it by waiting fifteen years before asserting his right by reissuing the patent?

Infringement.

The only other question in the case is that of infringement, but this requires very little consideration.

It is not claimed that appellee infringes by using a fastening device like that shown and described in the original patent, and claimed by the first claim of the reissue.

It is only by permitting the appellants to mutilate that fastening, by taking from it two of its essential features or parts—the stud and the bottom plate—that any claim for infringement can be sustained; and even then you will have to permit them to add something which is not described in either the original or reissued patent, before they have a rail fastening device.

If the appellants are entitled to a patent covering a fastening device consisting of two slotted plates made to fit and clasp the ends of the rails between them, united by *two or more* bolts like the joint shown by the cut, Fig. B, before referred to, the appellee infringes, and all the other railroads of the United States infringe the patent.

But they have no such patent. Allow them to dismember their roof-fastening device by throwing away the stud and cutting out the bottom plate, what have we left? Nothing but the slotted flanges of the bottom plate 4, 4, and the bolt 3 which connects them. Shown by fig. F.

Can you fasten the ends of two railroad rails with that device—two slotted plates united *by a single bolt*?

Most assuredly not. You will have to reconstruct the device, make the plates much longer, pierce each of them with at least two slots and add another bolt.

In short, you have got to give them a patent for a device, which is not shown or described even in the reissued patent, before they can establish their claim for infringement.

You have got to give them a patent for a device which was said to be hid away in the eaves of a woodshed in the year 1843, and never brought to the knowledge of the public until more than thirty years had elapsed.

You have got to give them a patent for a device which was in public use for more than twenty years before the original patent was applied for and thirty-six years before the date of the reissue on which the claim is based.

Would not this be an abuse of the patent law? Are not the appellants in as bad, if not a worse position, than the other inventors and owners of reissued patents, who have

heretofore made ineffectual attempts to take from the public what legally belonged to it, such as are recorded in the decisions of this court?

Does not this case add one more to the list of attempted frauds upon the public which, to use the language of this court in Case *v.* Brown, 2 Wallace, 230, "It is not necessary again to expose the fallacy of the arguments by which these attempts are sought to be supported, though we cannot hinder their repetition."

The decree of the court below should be affirmed.

ANDREW McCALLUM,

Of Counsel for Appellee.

SUPREME COURT U.S.
FILED
MAR 22 1882
JAMES H. McKEEN

Supreme Court of the United States,

OCTOBER TERM, 1881.

No. 245.

ASA JOHNSON AND THOMAS S. SANDFORD,
Appellants,

vs.

THE FLUSHING AND NORTHSIDE RAILROAD COMPANY,
Appellee.

Appeal from U. S. Circuit Court for the Eastern District of New York.

BRIEF AND ARGUMENT FOR APPELLEE.

S. D. LAW.

NEW YORK:
JOHN POLHEMUS, Printer and Mf'g Stationer, 102 Nassau Street.

1882.

U. S. Supreme Court,

OCTOBER TERM, 1881.

No. 245.

ASA JOHNSON and THOMAS S. SANDFORD,
Appellants,

vs.

THE FLUSHING AND NORTH SIDE RAILROAD COMPANY,
Appellee.

Appeal from the U. S. Circuit Court for the Eastern District of New York.

Brief and Argument on the part of the Appellee.

Statement of the Case.

The Complainants below, and who are the Appellants in this Court, brought their suit in the Circuit Court against the Defendant, who is the Appellee in this Court, for an alleged infringement of certain Letters Patent, Reissue No. 4,870, granted April 16, 1872, to the said Complainants, and which Letters Patent purport to be for an invention for

> "A new and useful *mode of self-adjusting fas-*
> "*tenings* for fastening metallic coverings to
> "buildings, and *for use* in any and all other
> "places where metals require fastening, and
> "contraction and the expansion require accom-
> "modation" (Record, p. 202).

This Reissue is set forth in full in the Record. (Record, pp. 201 to 204.)

The infringement complained of is, the use by the Defendant on its railroad of the ordinary Splice bars so called, for fastening or connecting together the ends of abutting railroad rails, and which are placed on each side of the ends of such rails—such bars being fastened to the rails by bolts passing through them and the rails, the bolt holes through the splice plates or bars being slotted or elongated so that they are longer than the diameter of the bolts, and thus permit of the expansion and contraction of the rails. (Record, p. 12, Int. 5–9; and Compts' Exh. No. 2.)

The Reissue No. 4,870, upon which the suit below was brought, was a Reissue of Letters Patent, No. 17,331, bearing date May 19, 1857, and granted to the appellant, Asa Johnson, and to William Higbie and Henry Link as assignees of a part interest therein,

> "For a new and useful mode of *self-adjusting* "*fastenings* for fastening metallic coverings to "buildings, and in any and all other places "where metals require fastening, and their "contraction and expansion demand accommo- "dation" (Record, pp. 199, 200).

The Original Patent was put in evidence by the defendants in the suit below, and is set out in full in the Record (Record, pp. 199 to 201).

The Original Letters Patent, No. 17,331, were extended in May, 1871 (Record, p. 2), by the Commissioners of Patents, for the term of seven years, from the 19th day of May, 1857; and the Reissue sued upon was granted April 16, 1872, subsequent to such extension.

The Bill of Complaint is in the usual form, and alleges (Rec., p. 2) the grant of the Original Patent, its extension, and the grant of the Reissue No. 4,870, and charges (Rec., p. 4) the infringement of said Reissue by the defendant, the Flushing and North-Side Railroad Company, and prays (Rec., p. 4) for an injunction, and an account of profits which had accrued to the defendant from the alleged use of the patented invention, and also of the damages which the complainants had suffered.

(The bill is found in the Record, pp. 1 to 5.)

The Answer of defendants, with its amendments, admits the grant of the Original Patent, No. 17,331 —its extension—and the grant of the Reissue No. 4,870 (Record p. 6).

But denies that Johnson was the first and original inventor of the invention purporting to be described and claimed in the Reissue, and alleges that the same had been, prior to said Johnson's alleged invention thereof, described in printed publications, and had been known and used in various ways, and at different places and by various persons, as set forth in the answer and its amendments. (Record, pp. 6, 8, 10, 11.)

And also denies infringement by the defendant of the said Reissue. (Record, p. 7.)

And also denies that the Original Patent was inoperative and invalid under the statutes, or was lawfully surrendered, or the Reissue Patent was lawfully issued. (Record, p. 6.)

And also sets up, that if the patentee Johnson was at any time the inventor of a self-adjusting fastener. applicable to Railroad rails, he had abandoned the same to the public. (Record, p. 11.)

The answer and its amendments are to be found in the Record, pp. 6 to 11.

Proofs upon both sides were duly taken, and the cause was heard before the Circuit Court of the

United States, at Brooklyn, in the Eastern District of New York, in February, 1878.

Mr. Justice Benedict, before whom the cause was tried, delivered his opinion August 27th, 1878, dismissing the Bill of Complaint (Rec., pp. 221–225), and on the 10th day of February, 1879, a decree was duly entered dismissing the Bill of Complaint with costs (Rec., p. 226).

From this decree an appeal was taken by the complainants to this Court. (Rec., p. 227.)

Assignment of Error.

The Circuit Court, as appears from the opinion filed in the case (Record, pp. 221 to 225), did not pass upon the questions of Prior Knowledge and Use, or Abandonment by the inventor Johnson, but confined its examination to the question of the legality and validity of the Reissue.

The learned Judge, after comparing the Original and Reissued patents, said:

> "It is thus seen that the essential elements
> " of the combination described and sought to
> " be secured by the Reissue, are different from
> " the essential elements of the combination
> " described in the Original, and that the result
> " produced by the combination described in
> " the Reissue is different from that produced
> " by the combination described in the Original
> " patent."
>
> "By these changes a substantial change in
> " the subject matter has been accomplished,
> " and upon established principles the conclusion
> " must follow that the Reissue is void.
>
> (Record, p. 224 [443].)

"The views I have thus expressed are fatal
"to the plaintiff's claim, and render it unneces-
"sary to consider the other questions discussed
"by counsel."

(Record, p. 225.)

The appellants assign as a ground of reversal of the decree that the Circuit Court

"Erred in finding that said Reissued Letters
"Patent are void, and in dismissing said bill
"with costs, and in not sustaining said bill and
"granting the relief therein prayed for."

(Record, p. 231 [468].)

Issues Before This Court.

The inquiry primarily before this Court, whether there was error in the finding of the Court below,

"That the essential elements of the combina-
"tion described and sought to be secured by
"the Reissue are different from the essential
"elements of the combination described in the
"Original, and that the result produced by the
"combination described in the Reissue is dif-
"ferent from that produced by the combina-
"tion described in the Original Patent,"

and deciding

"That said Reissued Letters Patent are void,"

necessarily involves the consideration of the questions:

What is the invention or combination described in the Original Patent, No. 17,331?

and

Is the same or a different invention or combination, described in and claimed and sought to be secured by the Reissue No. 4,870?

For the convenience of the Court in examining and comparing together the Original Patent and its Reissue, counsel for the appellee have caused the two patents to be printed on opposite pages, and make such presentation a part of their agument.

If this Court shall hold, that there was no error in the finding and decision of the Court below, then the examination of the other questions raised by the pleadings will be unnecessary.

But if this Court shall hold, that there was error in the decision of the Court below, then the further questions present themselves:

> What was the state of the art as to self-adjusting fastenings for fastening parts of structures together so as to permit expansion and contraction prior to Johnson's alleged invention?
>
> Was Johnson the first and original inventor of the combination described in and covered by said Reissue?
>
> Can the Reissue be construed to include a self-adjusting fastener for railroad rails? Has not such an adjustable fastener been abandoned by the inventor; or do his acts amount to anything more than abandoned experiments?

and

> Does the defendant by using the Splice bars, in use upon its railroad, infringe upon the Complainant's Patent Reissue 4,870?

1. *What is the invention described in the original Patent, No.* 17,331?

This is to be learned from the Patent itself, and from it alone.

The purport of the whole Patent is to the effect that the invention,—"*self-adjusting fastener*"—described therein, is a specific structure or device, considered as a whole; one designed for and adapted to a specific and particular use, though capable of being used in other places, or under other conditions, where such a structure is applicable.

DESIGNATION OF.

The *Patent* or Grant designates the invention as an *Improved* MODE *of fastening sheet metal to roofs;*

And grants to the Patentees the exclusive right and liberty of making, using and vending *such Mode* (Patents, p. 2, Record, p. 199).

The *Specification* in the opening declaratory clause (Patents, p. 6) states the invention to be "A NEW AND USEFUL MODE OF SELF-ADJUSTING FASTENING, *for fastening metallic coverings to buildings, and in any and all other places where metals require fastening, and their contraction and expansion demands accommodation.*"

In other parts of the specification the invention is called "*the self-adjusting fastener*" (Patents, p. 6) and "*my adjustable fasteners*" (Patents, p. 12).

And the Claim is for "*the self-adjusting fastener as described.*"

DESCRIPTION OF.

The Specification, which purports to give, and was required by the Statute to give, a "full, clear

and exact description" of the invention, makes special and particular reference (Patents, p. 6, Record, p. 200,) to two Figures of the Drawings as showing "*the self-adjusting fastener.*"

> "Figure 3 is an end elevation of *the self-adjusting fastener.*"
>
> "Figure 4 is a side elevation *of the same,*"
>
> and then gives a fuller and more detailed description of such figures as follows (Patents, p. 8, Record, p. 200):
>
> "In Fig. 3, 1 is the screw, 2 the stud, 4 the "flanges, 5 the bottom plate, 3 the pin passing "through the stud 2 and moving in the slots in "the flanges 4.4, 7 the india-rubber cord."
>
> "In Fig. 4, 1 is the screw, 2 the stud, 7 the "india-rubber cord, 4 the flange, 5 the bottom "plate, 3 the pin, s.s. the screws for attaching "the plate to the sheathing of the roof, as seen "in Fig. 2."

The bottom plate (5) is that part of the structure which is fastened to the wooden sheathing on the underside of the roof:—The flanges (4), which are always described as a part of the bottom plate and are always called *flanges*, contain the slots or elongated holes, which permit movement of one part upon the other, and in which the pin (3) in the lower part of the stud (2) passes and moves:—And the stud (2) connects these slotted flanges, through the pin (3), with the metallic covering of the roof.

The *screws* (1) and (s.s.) and the *india-rubber cord* (7) referred to in said figures and description, are manifestly no part of the *self-adjusting fastener*; as the former—*the screws*—are only means of fastening the metal covering to the upper end of

stud, and the *bottom-plate* with its flanges to the sheathing under the roof; and the latter—*the india-rubber cord*—is described as simply a device for enabling the stud to be held erect until it is made fast to the metal covering. (Patents, p. 8, Record, p. 200).

"*The adjusting fastener*," shown in these Figs. 3 and 4, and the parts of which are particularized as above, is clearly represented as a single, complete device, but of compound structure, and made up or composed of several elements or parts, to wit:

(1.) A "*stud*" to be fastened at its upper end to the metallic roofing, and of a length sufficient to reach from the metallic roofing to the slotted flanges of the bottom plate.

(2.) A "*pin*" passing through the lower end of such stud, and resting at each end in the slotted flanges.

(3.) A "*bottom plate*" to be fastened to the under sheathing of the roof and having, as a part of it,

(4.) "*Flanges*" which are in one piece with the bottom plate, and in which flanges are

(5.) Slotted or elongated holes, in which the pin of the stud rests and can move.

In the detailed and full description of the figures 3 and 4, which represent "*the self-adjusting fastener*." (Patents, p. 8), all those several elements are specifically referred to and designated as parts of, and together making and constituting, *the adjustable fastener;* and the *adjusting fastener*, as described and illustrated in the patent, *requires* for its use and successful operation, *every one of such parts*

and elements, and also their combination as shown and described in the patent.

The manner of applying this "*self-adjusting fastener*" to the roof is also clearly pointed out in the specification. (Patents, p. 10, Record, p. 200.)

> "*In the operation of my invention*, after sheeting the roof, if the boards do not exceed an inch in thickness, or thereabouts, I bore a hole at the point where I wish to insert the stud, about the size as seen in vertical dotted lines in Fig.2" (that is, large enough to admit the whole structure, except the bottom plate). "The holes may be made larger or smaller to allow for contraction and expansion, so that the studs can move freely in any direction required."
>
> "The bottom plate is then screwed firmly to the boards by the screws (*s*) (*s*) seen in Figs. 2 and 4, and the screw 1 passes through the metallic covering into the stud 2, thus firmly fastening the covering K to the stud, as seen in Fig. 2."
>
> "It will be further seen that the cord 7 passes through the stud 2, Fig.4, and then through the bottom plate, and is fastened together as at *g*, in said figure, thus always keeping the stud in an erect position until attached to the metal."

This description, as to the application of the invention, also clearly justifies the inference that *the adjustable fastener* is a complete structure, having the combination of parts mentioned.

The "*self-adjusting fastener*," composed or made up of such several parts or elements, is also the ONLY *self-adjusting fastener* described or shown in the patent;

And there is no suggestion, intimation or declaration in the Patent, that any one of those parts or elements of this *self-adjusting fastener* is not a material and necessary part of the structure—or

that any one or more of these parts may be or can be omitted in its construction,—or in adapting it for use in other places than on roofs of buildings, "where metals require fastenings and their contraction and expansion require accommodation."

(See also Renwick's testimony, Record, p. 191, Q. 26, and answer.)

The Claim of the original Patent is also clear and distinct as to what was the *self-adjusting fastener*, desired to be secured by Letters Patent, and what was its construction:

> "The *self-adjusting fastener*, AS DESCRIBED, "for the purpose of attaching metallic covering "to buildings, and accommodating *itself* (that "is, the described fastener) to the contraction "and expansion of the metal, and for fastening "metals in any and all other places where the "contraction and expansion demand accommo- "dation *substantially as set forth*, or any me- "chanical device equivalent thereto."

(Patents, p. 12, Record, p. 201.)

Such construction of the original Patent as to what is the "self-adjusting fastener" described therein, is fully sustained by the evidence of the Defendant's expert, E. S. Renwick, which is as convincing as it is clear.

(Record, p. 190, Q. 25.)

It is admitted but that such original Patent, both in its declaratory part and in its Claim, speaks of the application of the "self-adjusting fastener," described in such patent, not only "for fastening metallic coverings to buildings," but "in any and "all other places where metals require fastening, "and their contraction and expansion require ac- "commodation;"

But such language must necessarily be understood and regarded as referring to and including

only such "other places" as will admit of the use and application of the self-adjusting fastener described; that is, a self-adjusting fastener combined of and having the several parts or elements as mentioned and specified in such original Patent.

It is contended, however, by the Appellants, that the specification of the original patent does not declare, or make, "*the stud*" or "*the bottom plate*" to be elements of the combination or *self-adjusting fastener;* and that those parts are only and simply *means* of applying the invention in the particular case illustrated in the patent,—and that such "*self-adjusting fastener*" consists only of the "slotted flanges" and the "pin";—and that the principle of the invention consists in connecting the metal to be fastened with a bolt or pin, arranged to slide in slotted bearings in the direction of expansion or contraction, said adjustable bolt and its bearings being combined with the materials to be fastened.

This interpretation of the original patent and construction of the "*self-adjusting fastener*" is, of course, necessary in view of and to sustain the Reissue, and particularly the second claim thereof (Pats., p. 13); and without such construction, infringement on the part of the defendant, by the use of railroad splice bars, cannot be sustained.

But such an interpretation and construction, it is insisted by the Appellees, is at variance with the language and evident meaning and intent of the original patent.

"The stud" is described in the patent not only as connecting the expanding and contracting part, *the metal roof*, with the slotted flanges of the bottom plate, but it is also spoken of as being in itself, an *adjusting* part of the device. It is called in one part of the specification "*the adjustable stud*," and in another part "*the adjustable connecting stud.*" (Patents, pp. 8, 10, Record, p. 200.)

And, again, it is said (Pats., p. 12, Record, p. 200): "*The adjustable stud* * * is capable of a diagonal movement, thus accommoding itself to any direction required by the metal," thus clearly making it distinct from the metal or parts to be connected. In all the drawings which represent the fastener, this "stud" is clearly shown as a part of the "*self-adjusting fastener*," and there is no statement or intimation in the patent that this "stud" does not form a part of the "fastener,"—or that it can be dispensed with,—or that it is not as essential to the "*self-adjusting fastener*," as the slotted "flanges" or the "pin," which works in them. (Renwick, Record p. 191, Int. 25.)

This "stud" is also a *necessary* part of the "*self-adjusting fastener*."

It will be observed that the parts which are to be connected together, and which are described as having motion, with respect to each other, by expansion and contraction—that is the *metallic covering* of the roof (which is that which expands and contracts), and the under sheathing of the roof to which the *bottom plate with its slotted flanges* is attached—and to accommodate which motion the *self-adjusting fastener* is required, are not contiguous to or in contact with each other, but are separated from each other, by the distance from the upper surface of the boarding upon the top of the rafters to the sheathing boards on the under side of the rafters; and those separated parts must necessarily be connected together, and it is the *stud*, and that only, which makes this connection; and without this connection there would not be and could not be any *adjustable fastener* whatever.

Equally clear and definite is the original patent as to the "bottom plate" being an essential element of the fastener. This plate "appears" in all the drawings, showing *the adjustable fastener*, and the slotted portions of the "fastener" are never referred

to or designated otherwise than as *flanges* of the "bottom plate;" and there is no intimation or declaration to be found in the patent, that such "bottom plate" does not form a part of the "fastener"—or can be dispensed with—or is not as essential a part, as the slotted "flanges," or the "pin" working in them.

The original patent must therefore, it is submitted, be held to describe and cover only such "self-adjusting fastener" as is described therein—that is a "self-adjusting fastener" which is a compound device composed of a *stud*, a *pin* passing through such stud, *a bottom plate* with *flanges* or their equivalent, and *holes or slots in such flanges* to allow of the movement therein of the pin in the stud.

And such is the construction that was given to it by the Court below.

(Opinion, Record, p. 123.)

Such device, of course, embraces substantial mechanical equivalents of its parts, as one flange in place of two, and an elongated hole in the stud and round holes in the flange or flanges, instead of a round hole in the stud and elongated holes in the flange or flanges: but an omission of any one part makes a new structure.

It is also to be observed, that in such Original patent there is no reference whatever to the use of the "self-adjusting fastener" described therein, in connection with railway bars;

Nor is there any intimation or suggestion whatever in such patent that such self-adjusting fastener can be so applied or used:

And there is no suggestion or intimation in the original patent, as to any change or variation in the structure of such self-adjusting fastener, so that it can be used or adapted for use upon railway tracks for such purposes. (Renwick, Record, p. 191, Int. 26, 28.)

Nor can the self-adjusting fastener, described in such patent, be applied to or used upon railway tracks for the purpose of fastening the rails together and providing a means for permitting the expansion and contraction of such rails.

(Renwick, Record, p. 191, Q. 27.)

II.—*What is the invention described in the Reissue, No.* 4,870?

Is the invention described therein the same as, or different from, that described in the original patent?

To determine this question, it is necessary to note and examine the *changes* in phraseology and language which have been made in the Reissue, as compared with the Original patent, and the *additions and interpolations* which have been incorporated in the Reissue.

Comparing the specification of the Reissue No. 4,870, with that of the Original patent, No. 17,331, we find the following

CHANGES:

In the Grant or Patent.

Original Patent.	*Reissued Patent.*
"Whereas, Asa Johnson, * * has invented a new and useful *Improved mode of fastening sheet metal roofs.*"	"Whereas, Asa Johnson, * * has invented a new and useful IMPROVEMENT *in fastening sheet metal to roofs.*"
"These are to grant * * the exclusive right and liberty of making, using, and vending to be used, the *said mode.*"	"These are to grant * * the exclusive right to make, use, and vend the SAID INVENTION."

(Pats., pp. 2; 3; Record, pp. 199; 201.)

In the Specification.

"I have invented a new and and useful *mode of self-adjusting fastening* for fastening metallic coverings to buildings, and in any and all other places where metals require fastening, and their contraction and expansion demand accommodation."	"I have invented a new and useful MODE OF SELF-ADJUSTING FASTENINGS, for fastening metallic coverings to buildings, and FOR USE in any and all other places where metals require fastening, and their contraction and expansion require accommodation."

(Pats., pp. 6; 7; Record, 199–200; 202.)

"Fig. 3, is an end elevation of *the self-adjusting fastener.*"	Fig. 3, is an end elevation, in section of MY adjustable FASTENING, AND THE DEVICE FOR CONNECTING THE SAME TO THE METAL ROOF, DETACHED."
"Fig. 5, is a plan view of *the bottom plate.*"	"Fig. 5, is a plan view of the bottom plate, TO WHICH THE BEARINGS OF THE ADJUSTABLE BOLT ARE ATTACHED IN THIS INSTANCE."

(Pats. pp. 6; 7; Record, 200; 202.)

"In Fig. 2, 5, is *the bottom plate.*" Same language is used in the explanation of Figs. 3, 4, 5.	"In the drawing, 5 is a bottom plate, USED AS A CONVENIENT MEANS OF ATTACHING THE SIDE PLATES TO THE WOODEN SHEATHING OF THE BUILDING."

(Pats. pp. 8; 9; Record, pp. 200; 203.)

"*In the operation of my invention*, after sheeting the roof, I bore a hole," &c.	"*The method of using the invention* IN ATTACHING METALLIC ROOFING TO BUILDINGS, IS AS FOLLOWS: After sheathing the roof a hole is bored," &c.

(Pats. pp. 10; 11; Record, pp. 200; 203.)

In the original, the parts which contain the slots are, in *all* cases, termed "flanges" but

(Pats. pp. 8, 12 ; Record, pp. 200, 201.)

In the reissue these parts are termed "SIDE PLATES," or "FLANGES OR SIDE PLATES."

(Pats., pp. 9, 11, 13 ; Record, pp. 202, 203.)

"I may find in using *my adjustable fastener* it necessary to make some of them—those that are in the parallel lines—with the *flanges* to fit up close to the sides of the stud."

"Where, however, the movement is only sensible in the direction of the slots, the SIDE PLATES are made to fit up close."

(Pats. pp. 12; 13 ; Record, pp. 200, 201; 203.)

We also find inserted in the Reissue the following

ADDITIONS :

"The principle of my invention consists in connecting the "metal to be fastened WITH A BOLT OR PIN ARRANGED TO "SLIDE IN SLOTTED BEARINGS in the direction of expansion or "contraction, said adjustable bolt and its bearings being "combined with the materials to be fastened."

(Pats., p. 7; Record, p. 202.)

"I have found my adjustable fastener peculiarly useful in "fastening metallic roofs to buildings, and I proceed to de-"scribe its construction and use in that connection, from "which other uses will be obvious."

(Pats., p. 7; Record, p. 202.)

"In using my self-adjusting fastener for *fastening metallic "roofs to buildings*, I connect the sliding bolt or pin with the "roof BY MEANS of a stud fastened to the same, and I form the "SIDE PLATES, WHICH CONTAIN THE BEARINGS FOR THE SLID-"ING BOLT, IN CONNECTION WITH AND AS FLANGES OF A BOT-"TOM PLATE, which is secured fast to the under side of the "wooden sheathing of the building."

(Pats., p. 9; Record, p. 202.)

"Both the wooden sheathing and the metallic roof are thus "connected to the *self-adjusting mechanism* CONSISTING OF THE "SLOTTED SIDE PLATES AND THE BOLT WHICH SLIDES IN "THEM.

(Pats., p. 11; Record, p. 203.)

This claim is also added in the Reissue.

"2. I claim, in combination with the adjusting bolt and "slotted side plates, suitably connected to and combined with "the materials to be fastened together for the purpose of ac- "commodating the expansion and contraction of such mate- "rials with reference to each other, substantially as specified."

It needs no special shrewdness of observation to determine the purpose for which these changes are made, or labored argument to demonstrate the effect produced by them. The changes and additions tell their story too plainly to be misunderstood.

Their plain and evident purpose was, to eliminate the "*stud*" and the "*bottom plate*" from the elements or parts, which together make up or compose *the adjustable fastener*, as described and shown in the original patent;

And to make the invention consist, as declared in the clause above quoted, simply "*of the* SLOTTED SIDE PLATES *and the* BOLT *which slides in them.*"

The "STUD" is no longer described as an essential or integral part of the *adjustable fastener*, but is made simply a *device for connecting* the fastener to the metal roof of the building:

(Pats., p. 7 and 9, Record, p. 202.)

And the "BOTTOM PLATE"—which, according to the original Patent, is constructed with flanges, in which are the slotted holes for the pin of the *stud*, and is an essential part of the structure,—becomes *only a means of attaching* "to the under side of the sheathing of the roof" the *slotted flanges.*

These *slotted flanges* of the *bottom plate* are baptized with a new name—SIDE PLATES—and are

clothed not only with a new name, but with new and independent functions.

The *adjustable fastener* is made, by these changes in the Reissue, to consist of

The slotted flanges (now called *side plates*) and

The sliding pin or bolt,

and of these parts alone.

This conclusion as to what the invention described in the Reissue is intended to be, is not matter of inference or argument from the language used, but is based upon the declaration of the Reissue itself (Pats., p. 11, Record, p. 203).

> "The wooden sheathing and the metallic roof "are thus connected to the *self-adjusting* "*mechanism*, CONSISTING OF THE SLOTTED SIDE "PLATES AND THE BOLT WHICH SLIDES IN "THEM."

The *second claim* of the Patent is also based upon this declaration of what is *the adjustable fastener*, and can only be sustained upon such a construction of it.

In view of these alterations and additions made in the specification of the Reissue, the conclusion of the Court below is most clearly founded on correct principles, and is the only one deducible from the premises; and the Court was fully warranted in holding that

> "The essential elements of the combination "described and sought to be secured by the "Reissue are different from the essential ele- "ments of the combination described in the "Original, and the result produced by the com- "bination described in the Reissue is different "from that produced by the combination de- "scribed in the Original patent.
>
> "By these changes a substantial change in "the subject matter has been accomplished." (Rec., p. 224.)

It will doubtlessly be urged by the appellants, that Johnson, the alleged inventor of the *self-adjusting fastener* was the first and original inventor of a self-adjusting fastener applicable to Railroad rails, consisting of slotted side plates and a bolt sliding in them, said adjustable bolt and its bearings being combined with the materials to be fastened ;

And, in support of this position, the *old drawings* alleged to have been made by Johnson in 1843, in a volume of the works of John Newton, (and copies of which are inserted in the Record, between pages 52 and 53), and the *old model*, "Exhibit Johnson Model, 1843," will be produced and invoked ; (though in all these, it will be observed there is found a *bottom plate* having slotted flanges, and that there are no *flanges* or slotted *side plates* separate and distinct from a bottom plate).

But the inquiry in respect to identity of invention in the Original and Reissued Patents, *is not*

Whether such a self-adjusting fastener as is described in the Reissue is useful, or

Whether the Complainant Johnson is, or is not, the first and original inventor thereof ;

But whether a self-adjusting fastener, *such as is described in the Reissued Patent*, and is sought to be covered and protected thereby, *is described in the Original Patent ;* or, in other words,

Whether the Original and Reissued Patents are for the same invention ?

This question, as has been held in numerous cases in the Supreme Court, and also in the Circuit Courts, is a question for the Court, and is to be determined from a comparison of the Specifications of the two Patents, and from such comparison only.

In *Seymour* vs. *Osborne*, 11 Wall., 54-5-6, the Supreme Court say :

"Whether a Reissued Patent is for the same

"invention as that embodied in the Original
"Patent, or for a different one, is a question
"for the Court in an equity suit, to be deter-
"mined as a matter of construction, *on the*
"*comparison of the two instruments*, aided or
"not by the testimony of expert witnesses, as
"it may or may not appear that one or both
"may contain technical terms, or terms of art,
"requiring such assistance in ascertaining the
"true meaning of the language employed.

"When the specification and claim, both in
"the Original and Reissued Patents, are ex-
"pressed in ordinary language, without em-
"ploying any technical terms, or terms of art,
"*the question whether the Reissued Patent is*
"*for the same invention as that described in*
"*the Original Patent, or for a different one,*
"*is purely a question of construction.*"

The same Court in *Union Paper Collar Co.* v. *Van Deusen and others*, 23 Wall., 557, 558, held:

"Repeated decisions also have established
"the rule that parol testimony is not admis-
"sible, in an application for a Reissued Patent,
"to enlarge the scope and effect of the inven-
"tion beyond what was described, suggested,
"or substantially indicated in the original
"specification, drawings, or Patent Office
"model, *as the purpose of a surrender and*
"*reissue is not to introduce new features, in-*
"*gredients, or devices, but to render effectual*
"*the actual invention for which the Original*
"*Patent should have been granted.*

"Whether a Reissued Patent is for the same
"invention as the surrendered original, or for a
"different one, must very largely be deter-
"mined by a comparison of the specification of
"the two instruments, *as the decision must*
"*necessarily depend upon the question whether*
"*the specifications and drawings of the Re-*

"*issued Patent, are not substantially the same*
"*as those of the Original;* and if not, whether
"the omission or addition are or are not greater
"than the law allows to cure the defects of the
"original specification."

In *Sarven* v. *Hall*, 5 Fish. Patent Cases, 415, the Court say:

"A reissued patent cannot be sustained by
"extrinsic proof that the patentee was the
"inventor of all that is claimed in it, if what is
"so claimed was not shown or suggested in the
"original specification, drawings and model."

"Devices not described or specified may, if
"they are the invention of the patentee, be the
"subject of a patent, subject to all other rules
"governing the inventor's rights; but it is not
"the office of a reissue to embrace them."

The Supreme Court in a late case, *The Swain Turbin and M'f'g Co.* vs. *Ladd*, 19 Off. Gaz. 62 say:

"*A reissue can only be granted for the same*
"*invention which was originally patented.*
"*To show that the patentee before obtaining*
"*his original patent had made and done all*
"*the things which are embraced in or covered*
"*by the reisssued patent, would be nothiug to*
"*the purpose.*"

Numerous other cases exist to the same purport.

Such a comparison of the two instruments, it is submitted fully establish these conclusions:

That the two Patents do *not* describe a self-adjusting fastener *of the same construction*, and *having the same elements and features* in combination;

But that *the self-adjusting fasteners* described in such Patents respectively, *differ in their construction; certain parts of such fastener, as described in the Original Patent, being omitted, or taken from and no longer made a part of, the fastener described in the Reissue.*

III.— *What is the effect of such changes in, and additions to, the Reissue?*
Is the Reissue, No. 4,870, *a legally issued Patent, or is it void?*

The law is well settled that a reissue must be *for the same invention* as described in the original patent:
And that no new matter can be introduced in the specification of a reissue.

The provision of the Statute as to Reissues that a Reissued Patent must be for the same invention as the Original Patent is plain and distinct.

> "Whenever any patent * * * is
> "inoperative or invalid, by reason of a defec-
> "tive or insufficient description or specification,
> "or by reason of the patentee claiming in his
> "specification, as his own invention, more than
> "he had or shall have a right to claim as new,
> "if the error has arisen by inadvertence, acci-
> "dent or mistake, and without any fraudulent
> "or deceptive intention, the Commissioner shall,
> "on the surrender of such patent, *cause a new*
> "*patent for the same invention to be issued* to
> "the patentee, for the unexpired part of the
> "term of the original patent."

Rev. Statutes, § 4,916.
Act 1836, § 16; 1870, § 53.

The decisions of the Courts under this section are numerous, and clear and conclusive; but only a few of the leading cases will be referred to.

"Though an action is founded on a reissued "patent, *the rights of the plaintiff must rest* "*upon the discovery described in the original* "*patent.* Whatever may be the language of "the reissued patent, it imparts no right not "contained in the first grant."

Smith *v.* Higgins, Betts, J., 1857.

"A reissued patent is a patent for the same "invention as the original patent. *It can by* "*law include no new one.*"

Woodworth *v.* Hall, 1 Wood, *v.* Min., 257.

"A principle, although known to the patentee when he made his invention, can not be "incorporated in a reissue, if he failed to describe it in his original patent."

Dyson *v.* Danforth, 4 Fish., 133.

"In considering the validity of a reissued "patent, the question is, whether the invention "described in the reissued patent *is to be found* "*in the original* model, specifications or drawings of the inventor."

Chicago Fruit House *v.* Busch, 4 Fish., 395, 400.

Corrections may be made in the description, specifications or claims, when the patentee has claimed as new more than he had a right to claim, or when the description specification or claim is defective or insufficient, *but he can not*, under such an application, *make material additions to the invention, which were not described, suggested, nor substantially indicated in the original specifications, drawings, or Patent Office model.*

Seymour *v.* Osborn, 11 Wall., 516, 544, cited in Chicago Fruit House *v.* Busch, 4 Fish., 401.

A party cannot, by the surrender of a patent and the reissue of it, obtain an exclusive right to devices *not* shown or claimed in the specifications, drawings or model of the original.

Aultman v. *Holley*, 6 Fisher, 534, 537.
Gill v. *Wells*, 22 Wall., 1, 25.

The purpose of a reissue is to enable one who has, by a mistake or inadvertence, not taken what he was entitled to in his original patent; but the reissue can not be made to cover anything which was not in the original patent.

Vogler *v.* Temple, 11 Off. Gaz., 923.

Interpolations of new features, ingredients or *devices*, which were neither described, suggested nor indicated in the original patent, or Patent Office model, *are not allowed in a reissue*, as it is clear that the Commissioner has no jurisdiction to grant a reissue unless it be for the same invention as that embodied in the original Letters Patent. (*Clifford, J.*)

Carew *v.* Boston Elas Fab. Co., 5 Fish, 90, 99, citing Seymour *v.* Osborne, 11 Wall., 544.
Union Paper Collar Co. *v.* Van Deusen, 7 Off. Gaz., 919.

A change of description in the reissue, describing a new form of an invention, or another operation than that shown in the original patent or suggested therein, is such a change as is not permissible in a reissue.

Carew *v.* Bos. Elas. Fab. Co., 5 Fish., 99.
Sickles *v.* Evans, 2 Cliff., 221.
Gill *v.* Wells, 22 Wall., 1, 23.

In *Gill* v. *Wells*, which was the well-known Patent for a "Hat-forming Machine," the invention described in the original Patent was a machine consisting of five specific devices organized together, each of which performed certain specific functions. Special reference was made to, and a detailed de-

scription given, in such Original Patent, of all the devices, before mentioned, included in the apparatus, and of the functions which the respective devices of the apparatus performed; and

Minute description was further given of one part or device--the "tunnel or chamber, and its appendages"—and of the functions performed by such tunnel or chamber; but there was no trace of any suggestion or intimation that the operation of the machine could be performed without the chamber or tunnel; nor was there any declaration, suggestion or intimation in the original patent, going to show that such "tunnel or chamber" was resolvable, or could be resolved into separate parts, or that any portion of such "tunnel or chamber," less than the whole, could be used.

In the original patent there were four claims, covering different combinations of such several parts, but in all such claims the entire tunnel or chamber (which had a bottom and top, and two sides, all united together), entered as an original device.

The Reissue upon which the suit was brought, set forth, however, that the said tunnel or chamber was not a necessary element of the combination, and a new claim was made for the combination of the various devices, but omitting therefrom such tunnel.

In such Reissue also, all mention of the tunnel or chamber, as an *integral* device, was omitted; and that device was split up into, or described as consisting of four parts, called *a bottom plate or guide*, *a top guide or deflector*, and *two side guides*, each of which was treated as if it was an *integral* device; and the Claims were drawn to cover combinations of each of those several newly designated parts, with other parts of the machine:

And there was no allusion whatever to the tunnel or chamber, as a whole, in describing the apparatus, except at the conclusion of the description, where it was stated that in the machine illustrated in the

drawings, *the bottom plate top guide or deflector*, and *side guides* are all united along their edges.

The Court, in its opinion, say:

> "That such description given in the Reissue "is a new feature, describing devices different "in form from the description given of the "means to accomplish the same end, in the "original patent (p. 23)."

The Court further say, in respect to the specifications of the Original and Reissued Patents:

> "Patient search has been made in vain for any "trace of the description of any other invention "in the original patent, than that of the com- "bination of all the ingredients of the apparatus "described by the patentee, as the one used by "him to effect the described patented result. "Unable to discover in that specification any "description of any other invention than that, "the court is of the opinion that none other "was secured by the original patent.
>
> "Enough has already been remarked to show "that all the principal claims of the original "patent recognize the chamber or tunnel, and "its appendages, as one of the primary ingre- "dients of the patented invention, and it is ab- "solutely certain that the specification of that "patent contains neither suggestion, indication, "nor intimation that the original patentee "made any other invention to accomplish the "described functions than the one which in- "cludes the whole four described ingredients."

The Court, after declaring the rule to be that where a patentee, who has invented a new and useful combination of several ingredients, also claims to have invented new and useful combinations of a fewer number of the ingredients, he is entitled to a patent for the several combinations, and may give a description of the several combinations in one speci-

fication, and may secure the benefit of each of the inventions by separate claims, and, if by inadvertence he should fail to claim one of the combinations, may surrender the original patent, and obtain a Reissue for any combinations which were omitted in the claims of the original patent, proceed to say:

> "Very different rules, however, apply in a "case, where the only invention described in the "original patent is the one which includes all "the ingredients of the machine, provided there "is no suggestion, indication or intimation that "any other invention of any kind has been "made. Such a patentee as the one last men- "tioned may subsequently discover that he can "accomplish a new and useful result by a com- "bination embracing less than the whole num- "ber of the ingredients included in the prior "patented combination; but he cannot secure "the right and privilege of a patentee in the "combination of the smaller number of the in- "gredients by the surrender of his first patent, "and a reissue of the same which shall include "the second combination as well as the first, "because the reissued patent in that event "would not be for the same invention as the "surrendered original."

The Reissue was held to be invalid, as not being for the same invention as was described in the original patent.

The present case is substantially "on all fours" with that of *Gill* v. *Wells*.

In each, the invention is a machine composed of certain parts organized together, and in each, the specification in the original patent pointed out what such certain parts were, and the functions performed by them severally.

And in each case, the Reissue in its description of the invention left out some of the parts or elements

of the combination, as set forth in the original; and in both cases, the specification of the original patent contained neither suggestion, indication or intimation that the patentee had made any other invention to accomplish the described functions, than the one which includes the whole severally described ingredients or features."

The view taken in the case of *Gill* v. *Wells* was sustained by the same Court in a later case, *Russell* v *Dodge*, 93 U. S. Rep. (3 Otto), 460.

This was a patent for a process treating bark-tanned leather with fat liquor.

The Original Patent described a process for treating bark-tanned leather by means of a compound, in which *heated* fat liquor was an essential ingredient, and as to the use of such a heated liquor it was explicit.

The Reissue was changed so as to cover the use of fat liquor, whether hot or cold.

The Court says: "It is clear that the patent" (the reissue) "is for the use of fat liquor in "any condition, hot or cold, in the treatment "of leather. * * The state of the liquor "is not mentioned as essential to the treatment "or to accomplish any of the results sought. "It is only stated as a thing to be *desired* that "the liquor should be heated, and that it would "be *preferable* that other ingredients were "mixed with the heated liquor to make the "compound mentioned.

"The original patent was less extensive in its "claim than the reissue. That patent was for "a process of treating bark-tanned leather or "sheepskin by means of a compound in which "*heated* fat liquor was an essential ingredient. "The specification was explicit in this particu-"lar, and left no doubt on the subject. The

"reissued patent covers the use of fat liquor in "any condition, hot or cold, and when used "alone, or in a compound with other ingre- "dients, and thus has a more extensive opera- "tion, bringing under it manufactures not "originally contemplated by the patentee. Is "such a reissue valid?"

"As a reissue can only be granted for the "same invention embraced by the original "patent, the specification could not be sub- "stantially changed, either by the addition of "new matter, or the omission of important "particulars, so as to enlarge the scope of the "invention as originally claimed. A defective "specification could be rendered more definite "and certain so as to embrace the claim made, "or the claim could be so modified as to "correspond with the specification, but except "under special circumstances, as in Lockwood "*v.* Morey, where the inventor was induced to "limit his claim by the mistake of the Com- "missioner of Patents, this was the extent to "which the operation of the original patent "could be changed by the reissue. The objects "of the law was to enable patentees to remedy "accidental mistakes, and the law was per- "verted when any other end was secured by "the reissue."

"Judged by that law there can be no doubt "of the invalidity of the reissue. * * * * "The change made in the old specification by "eliminating the necessity of using the fat "liquor in a heated condition, and making, in "the new specification, its use in that condition "a mere matter of convenience, and the inser- "tion of an independent claim for the use of "fat liquor in the treatment of leather generally, "operated to enlarge the character and scope "of the invention. The evident object of the "patentee in seeking a reissue was not to correct "any defects in specification or claim, but to

" change both, and thus obtain, in fact, a patent
" for a different invention. This result the law
" does not permit."

The language of the Court, in this case, is *nominis mutandis*, descriptive of the specification and claim of the original and reissued patents in the present case now before the Court, and fully applicable thereto.

The same principle was again enunciated and followed in the case of *Stevens* v. *Pritchard*, 4 Clifford, 417, decided by his Honor Judge Clifford in the District of Massachusetts in 1876.

And was again recognized and adopted in the case of *Miller* v. *Bridgeport Brass Co.*, 14 Blatchf., 282, decided by Judge Shipman in 1877.

In this case the learned Judge refers to the cases of *Gill* v. *Wells*, and *Stevens* v. *Pritchard*, as having settled the law governing the case, and then makes use of the following language:

" The original patent states the object of the
" invention to be a lamp which would burn with-
" out a chimney, and the entire mechanism is
" directed to accomplish that object. It con-
" sisted generally of a wick tube with collar and
" plates, perforated cap for the conveyance of
" air, the vapor-tubes, and two peculiarly con-
" structed heaters, as claimed.

" The two heaters are related to each other,
" and the entire arrangement of the two with
" their various parts is particularly described in
" the specifications to be designed to supply the
" flame with sufficient oxygen to support proper
" combustion without a chimney. The inven-
" tion, so far as the heaters were concerned
" consisted in their joint use. The lamp of the
" second reissued claim is withont this complex
" arrangement of heaters. It contains one de
" flector and is the ordinary lamp with a chim-
" ney for burning volatile hydrocarbons plus
" the vapor-tube and the perforated place.

"The specification of the original patent sug-
"gested no invention save the one contained in
"the entire combination. A combination of the
"vapor-tube and the perforated plate, either
"with one heater or with the other well-known
"ingredients of a lamp, was not indicated as a
"distinct part of the invention. The second
"claim of the reissued patent described an ar-
"ticle materially different from the article which
"was originally patented. The claim contained
"a combination of a lesser number of ingredients
"than the combination which composed the
"original invention. One of the heaters and
"all of the cap, except the perforated plate,
"have disappeared."

The patent was held invalid.

The decision of the Court below, in this case, has been affirmed by this Court, at the present term.

Later decisions of the Courts fully sustain the principles laid down in the cases before cited and referred to.

The later decisions of the Supreme Court also determine more fully and particularly the proper meaning and interpretation of the words "*the same invention*," in the statute governing Reissues; and what will constitute *a different invention*.

This became necessary, because of the practice which had grown up in the Patent Office in reference to the allowance of Reissues, to declare and restore the original and proper meaning and intent of the statute.

It is not to be denied, but that the practice in reference to Reissues had been without sufficiently careful consideration of the intent and true meaning of the statute, and had worked great mischief and injury to the community.

And it is not too strong an assertion, that this part of the Patent Law had been so strained from its

legitimate and proper meaning and intent, that Reissues had too often become, under the form and sanction of law, a means of levying and enforcing most unjust demands.

The attention of the Court is asked to some of these later decisions.

In *The Giant Powder Company* v. *Cal. Vigorit Powder Company*, 4 Fed. Rep., 720,

The Original Patent was for a compound of nitro-glycerine with "*inexplosive*," porous, absorbent substances, which would take up the nitro-glycerine and render it safe for transportation, storage and use, without the loss of its explosive power. It was discovered, however, that porous substances, which were *explosive*, were capable of being used for the same purpose and with like effect. A Reissue was obtained, which was made to embrace a compound of nitro-glycerine with all porous absorbents, whether "inexplosive" or "explosive."

> The learned justice of this Court, before whom the Reissue came in the suit above named, held that the Reissue enlarged the scope of invention, and was not for the same invention as the Original Patent, but described and claimed a compound not embraced in the original; and held the patent void.

The Reissue, in this case, had been sustained by the Circuit Judges of the First and Second Circuits; but it was sustained only on the construction that the term "inexplosive" in the original specification was not used in an *absolute* sense, but used only in a *relative* sense, as compared with nitro-glycerine, and that the invention, therefore, included the use of porous substances, such as were referred to, even though they might be explosive; in other words, those Courts gave a new and special meaning to the word "inexplosive," and held, that, in fact, it meant and included both "inexplosive" and "explosive" absorbents.

This was, in fact, making a *new description* of the invention of the patentee.

In *Flower* v. *Rayner*, 5 Fed. Rep., 793,

The Original Patent was for a process of producing indelible lettering, designs, &c., upon tin or sheet iron, by the use of metallic paint, the article to be thereafter subjected to a heat sufficiently high to amalgamate, as was alleged, the colors of the paint with the surface of the metal.

In the Reissue the application of such lettering, etc., was no longer confined to tin or sheet iron, but included such application to cans, boxes and other articles—the use of metallic colors alone was dispensed with, and instead thereof colors of any base, whether metallic, mineral, vegetable or animal could be used—and a degree and duration of heat sufficient to amalgamate the colors with the metal, was not made necessary.

The Court held:

> "That the changes must be regarded as new and unauthorized, under the decision of the Court in the case of *Russell* v. *Dodge*, 93 U. S., 460," and held the Patent void. 'The case of *Powder Co.* v. *Powder Works*, 8 Otto, 126, was also cited and approved.

In *N. Y. Bung & Bushing Co.* v. *Hoffman*, 9 Fed. Rep., 199,

The original patent was for an improved bung, and described a wooden (yielding) bushing, having the hole for the faucet smallest in the middle and conical both outward and inward, which was screwed into another bushing or casing of iron (a rigid casing) which was screwed into the barrel; and described no other form of bushing; and the claim was for a bushing, constructed and arranged as described.

The Reissue set forth the invention as consisting of a rigid sleeve or casing, to be inserted within the faucet hole, and provided with a yielding lining; and claimed a compound bushing consisting

of a rigid sleeve, or casing, and a yielding lining.

The Court held that the Reissue was broader than the Original Patent in that it embraced *any* form of wooden bushing, while the original described only a *particular* form.

And that the Reissue was void.

In *Averill Paint Co.* v. *Nat. Mixed Paint Co.*, 9 Fed. Rep., 462,

The Original Patent, granted 1867, was for an improved paint compound, particularly described by ingredients and quantities, with lime water and silicateof soda as emulsating agents; and the claim was for a paint composed of the ingredients herein named, and prepared and compounded substantially in the manner specified. In the Original Patent there was no allusion to anything to contain the paint.

In 1876 a Reissue was obtained, in which was made and allowed the following claim:

A mixed liquid paint, composed of oxide of zinc and other pigments, oil, turpentine or benzine, water, and one or more emulsating agents, *put up in tight vessels or cans.*

The Reissue was obtained under 53 of the Act of 1870, which provided:

"Where there is neither model or drawings, "amendments" (introducing new matter) "may be made upon proof satisfactory to the "commissioner that such new matter or amend- "ment was part of the original invention, and "was omitted from the specification by inad- "vertence, accident or mistake."

On the application for a Reissue, the patentee made proof that, prior to his application for the original patent, he had put up his paint in cans and other tight packages, and as to the advantages of so doing, and upon such proof, the Reissue was granted.

The Court say:

"The Original patent was valid enough, "apparently, for the particular kind of paint "described in it. The Reissue, if it is for that "kind of paint only, packed in tight vessels, "may be valid, for it would merely narrow the "scope of the claim upon the same invention, "from that kind of paint everywhere, to that "kind of paint only when so packed."

"The Reissue is not limited to that particular kind of paint. It extends to all forms made from the same ingredients, by the use of any emulsating agents. This expands the original patent not only beyond the scope of the claim upon the invention described, but beyond the scope of the invention."

"The whole invention there (in the original) "described was of a particular kind of liquid "mixed paint. The invention described in the "Reissue is of all kinds of liquid paint packed "in tight vessels."

"The invention of packing in vessels is not at "all described, or even alluded to, in the Original "Patent."

The bill was dismissed.

These decisions were made in the Circuit Courts; other decisions of the same purport have also been made in said Courts.

Meyer v. *Morsheimer*, 20 Off., Gaz.
Wick v. *Stevens*, 2 Woods, 312.
Amer. Middlings Puri. Co. v. *Atl. Milling Co.*, 5 Dillon, 127.

Of decisions made in this Court, I cite the following:

In *Powder Co.* v. *Powder Works*, 8 Otto, 126,

The Original Patent was for a process, or different processes, for exploding nitro-glycerine. Modes of preparing the pure nitro-glycerine were described, but there was no hint of any new mixture or composition having been invented by the patentee.

The Original Patent was afterwards reissued in four divisions, and subsequently one of the divisions was again reissued in two divisions.

These last Reissues were for specific compounds and mixtures, or compositions of matter, and upon these Reissues the suit was brought.

The processes described in the original patent had no connection with the compounds patented in the Reissues.

> The Supreme Court say: "Inasmuch as the "reissued patents are for compounds of nitro-"glycerine with various other substances, it is "impossible not to say that they are for an "entirely different invention from that secured, "or attempted to be secured, by the original "patent" (p. 136).
>
> "Since, therefore, the reissues in question are "not for the same invention for which the "original patent was granted, it follows that "they are void."

In *Ball* v. *Langles*, 12 Otto, 128,

The Original patent, which was for improvements in ovens, described an oven placed above the fire chamber, and between these parts was a chamber, communicating with vertical side and back flues through which the products of combustion passed to the chimney. These flues were exterior to the oven proper, but communicated with the interior chamber or oven by perforations or openings, through

which only the products of combustion could pass into the oven. There was no direct communication between the fire space above the fire chamber and the oven, and the products of combustion did not and *could not pass directly* into the oven.

The Reissue, instead of representing the space above the fire chamber as communicating with the interior chamber or oven, only *indirectly* through perforations in the vertical and back flues, described it as communicating "directly or indirectly in any proper manner with the chamber" or oven, thus permitting the perforations or openings to be made through the bottom of the oven.

The Court says:

> "It cannot be doubted that while the Reissues "claim what was claimed in the Original, they "claim much more. They claim an entirely "different mode of heating the chamber, neces- "sitating a radical difference in the construction "of the oven."
>
> "We cannot doubt that the purpose of the "Reissue was, not to cure defects in the original "specification, or any deficiency in describing "the invention, but to cover other devices "which the patentee had not in mind when he "first applied for his patent, and which may "have subsequently come to his knowledge. "Thirteen years after the patent was granted "had elapsed before he applied for any Reissue. "However this may be the Reissued Letters "Patent are so clearly for a different invention "from that for which the patentee first applied, "containing new matter, and so much broader, "that we are constrained to hold that the Com- "missioner of Patents had no authority to grant "them, and consequently they are void."

The language of the Court in this case could scarcely be more appropriate to the case now before the Court. Here the Original Patent ran its full term of existence in the form in which it was first issued,

and was extended, and the Reissue was not obtained until more than *fifteen* years after the granting of the Original.

In this case, as in the one cited, it can most truly be said :

> " We cannot doubt that the purpose of the " Reissue was not to cure defects in the original " specification, or any deficiency in describing " the invention, but to cover other devices " which the patentee had not in mind when he " first applied for his patent."

The decision in *Ball* v. *Langles* was affirmed and repeated by this Court, in respect to the same Reissue, in *Garneau* v. *Dozier*, 12 Otto, 231.

To the same purport is the case of *Manufacturing Co.* v. *Corbin*, 13 Otto, 786 ;

And the cases of *Miller & Co.* vs. *Bridgeport Brass Co.*, and *James* vs. *Campbell*, decided in this Court at the present term.

The effect of such changes in a Reissue—*that the Reissue is void and of no effect*—is well established by a long line of decisions in this Court and in the various Circuit Courts.

Authorities need not be cited to sustain this position.

IV.—*But if the Reissue No.* 4,780 *is a good and valid Patent, what is the invention covered by the claims thereof?*

The claims of such Reissue are two in number, as follows :

1. The self-adjusting fastener, as described, for the purpose of attaching metallic coverings to buildings, and accommodating itself to the contraction and expansion of the metal, and for fastening metals in any and all other places where the contraction and expansion demand an accommodation, substantially as set forth.

2. I claim, *in combination with the adjusting bolt and slotted side plates*, suitably connected to and combined with the materials to be fastened together for the purpose of accommodating the expansion and contraction of such materials with reference to each other, substantially as specified.

A preliminary inquiry arises as to the Second Claim, which is:

Whether such claim, in fact, covers, or can be construed to cover, anything in particular.

Such claim, as it reads, does not specify or point out what is claimed "in combination with the adjusting bolt and slotted side plates," or whether any thing is claimed in combination therewith.

All of the claim after the word "plates" in the second line is merely descriptive of the purpose or ends to be secured by connecting and combining the adjusting bolt and slotted side plates to the materials when fastened together.

That this is the fact was admitted by the expert of Complainant,

Elliott, Record, p. 82, *Int.* 25.

Such expert, however, insists that there is a mistake or misprint in such claim, in the insertion therein of the word "with" in the first line, and, also insists, that in construing the claims of a patent he has, as an expert, the right to take from the claim, or disregard any word or words which he considers inserted by mistake, or misprints, or clerical errors, though it is not proved that such word or words are mistake or misprints.

Record, p. 82, *Cr. Int.* 28, 31.

It is only by the erasure of such word from that Claim, or the disregard of it, that the Claim can have such a construction, as is contended for by such expert.

There is, however, in the case no proof whatever that such word is either a mistake, misprint, or clerical error.

The language of this Court in *James* v. *Campbell*, 21 *Off. Gaz.*, 337, is pertinent to the present case.

"If he (the patentee) was the author of any other invention than that which he *specifically describes and claims*, though he might have asked to have it patented at the same time and in the same patent, yet if he has not done so, and afterwards desires to secure it, he is bound to make a new and distinct application for that purpose, and make it the subject of a new and different patent. When a patent fully and clearly, without ambiguity or obscurity, describes and claims a specific invention, complete in itself, so that it cannot be said to be inoperative or invalid by reason of a defective or insufficient specification, a reissue cannot be had for the purpose of expanding and generalizing the claim, so as to make it embrace an invention not described and specified in the original. It is difficult to express the law on this subject more aptly and forcibly than in the words of Mr. Justice Grier in the case of *Burr* v. *Duryee* (1 Wall, 577), where, in delivering the unanimous opinion of the Court, he says:

> 'The surrender of valid patents and the granting of reissued patents thereon, with expanded or equivalent claims, when the original was clearly neither 'inoperative nor invalid,' and whose specification is 'neither defective nor insufficient,' is a great abuse of the privilege granted by the statute, and productive of great injury to the public. This privilege was not given to the patentee or his assignee, in order that the patent may be rendered more elastic or expansive, and therefore more 'available' for the suppression of all other inventions.'"

"Having obtained a patent for his specific device and combination, if he afterward wished to claim the general combination, and had not already abandoned it by taking a narrower patent, he was bound to make a new application for that purpose. Patentees avoid doing this when they can, and seek to embrace additional matters in a reissue, in order to supersede and get possession of the rights which the public, by lapse of time or other cause, have acquired in the meantime. It is for this very reason that the law does not allow them to take a reissue for anything but the same invention described and claimed in the original patent."

The delay of the patentee in applying for his Reissue—in the present case about 15 years—must also be held under the decision in ~~*James v. Campbell*~~ *Miller v. Bridgeport Brass Co.*, as a dedication to the public of all that was not claimed in his Original Patent. "The pretence that it was inadvertence or oversight, which had escaped the patentee's notice for 15 years, is too bald for human credence."

It is submitted that the Claim must be interpreted as it stands in the Patent, and that it is not in the province of any witness, in whatever capacity he may be examined, or of the Court, to make new claims for a Patentee. The Patent must stand or fall upon the Claims as made by the Patentee and as found in the Patent.

As to what is embraced in and covered by the Claims of the Reissue, experts have been examined by both parties, namely:

Mr. Elliot, by the Complainants.

Mr. Renwick, by the Defendants.

The testimony of these witnesses, as to the device covered by such claims, is as follows:

First Claim.

The Complainants' Expert holds that the first claim is for a self-adjusting fastener, consisting of *five* elements, to wit:

The slotted side plates, as two of such elements;

The adjusting bolt, passing through such side plates, as another;

The connecting piece, or stud 2, as another; and

The screw, or fastening 1, which connects the stud to one of the articles to be connected together.

Record, p. 83, 84.

Or.-Int. 33-35.

The Defendants' Expert considers that the self-adjusting fastener described in such first claim consists of

The shoe, or bottom plate, 5;

The side plates or flanges, 4, 4, which are in one piece with the bottom plate, and

The bolt, which is passed through holes in said flanges of larger size than the bolt.

There would, however, be no difference in principle, if the position of the bolt and slotted holes were transposed, and if the bottom plate had but a single flange instead of two.

Record, p. 169, 170.

Int. 5.

It is not alleged by the complainants that the defendants infringe the first Claim of the Patent Reissue, No. 4,870, and therefore no particular exam-

ination of such Claim is required or necessary. The construction of such Claim by the respective experts is, however, placed before the Court in connection with their construction of the Second Claim, to enable the Court to have a more full understanding of the whole Patent, and thus be able to weigh more readily the value of the testimony of the respective Experts.

Second Claim.

The Complainants' Expert holds that this claim includes five elements, and is for the combination of

Two pieces of material to be fastened together;

Two slotted side plates to serve as clamps on opposite sides of the materials to be fastened together; and

An adjustable bolt, or its equivalent, to hold said clamping plates in position thereon.

Record, p. 73, *Int.* 6.

Record, p. 84, *Cr. Int.* 36.

Complainants' Expert repeats again and again in his testimony that there must be, under this claim a slotted side plate *on each side* of the materials to be fastened, and that a *single* slotted plate on one side of an article to be fastened is not to be considered the equivalent of such two

The Defendants' Expert considers that such second claim is capable of *two* interpretations, according as a broader or narrower construction is given to its language.

The combination recited in such second claim may be a combination of

The adjusting bolt, or its equivalent;

The slotted side plates, or their equivalent;

The two articles or materials to be connected together; and

Every means of suitably connecting the adjusting bolt and slotted side plates with the articles or materials to be fastened together.

Record, p. 170, *Int.* 6.

Or,

Such combination may be construed as consisting of

The adjusting bolt, or its equivalent;

The slotted side plates, or their equivalent;

The two articles or materials to be fastened together; and

Suitable means, substantially such as are described or specified—which are the "Stud

plates, under any circumstances.

2" and "Bottom plate,' or "Shoe 5"—by which the adjusting bolt and slotted side plates are suitably connected and combined with the said materials or articles; and that such two means—the *stud* and *bottom plates*—or their substantial equivalents, must form part of the combination recited in such second claim.

Record, p. 171, *Int.* 6.

The construction of the Second Claim, as given by the Expert of Complainants, is, as before mentioned, that such claim is for the combination of

The two materials to be fastened together and
Two slotted side plates, on opposite sides of the materials to be fastened, and which serve as clamps to hold such materials in position, and
The adjusting bolt.

It is scarcely possible to conceive how such a construction can in any way be derived from, or justified by, the language of the Patent, or from anything described or illustrated or suggested therein; or of what analysis of the Patent, such a construction is the result; and the Complainants' Expert has not given, or attempted to give any reasons by which he warrants and justifies such a construction.

The materials or articles to be fastened together, as described in complainant's patent, are *the metallic covering of the roof*, and the *underside of the sheathing of the roof* or the wooden structure on which the metallic covering rests and is supported.

The flanges or slotted plates are fastened to the underside of the sheathing by the bottom plate 5, connecting such flanges, and form a support for the adjusting bolt; but such slotted flanges do not em-

brace or clamp any part of the sheathing, or any part of the metallic covering of the roof, much less do they embrace or clamp at the same time the sheathing and the metallic covering, which are the materials or articles to be fastened together.

The placing these flanges, or slotted plates, on opposite sides of the materials to be fastened, and so as to act as clamps to hold such materials in position, is neither described or suggested anywhere in the Patent; and, moreover, such slotted flanges as described and shown in the patent, do not act as clamps upon or for anything, and are not upon opposite sides *of any portion of either* of the materials to be fastened together, and are only rests or supports for the adjusting bolt, which can have movement by reason of the slotted holes in such flanges.

The reasons for this opinion of complainant's expert, as to what this Second Claim covers will, however be apparent, we think, when we consider the circumstances under which his testimony was given, and the data or premises on which his opinion was founded.

And contrasting with these the premises on which the Expert of Defendant rests his construction of the Second Claim, we shall be better able to determine which opinion or construction is most reliable.

The Complainants, when putting in their opening proofs, only put in evidence their Patent and proved the use by Defendants of the thing, which was alleged to be an infringement of Complainants' Patent—the Splice plates, which are marked "Comp's' Exh. 2,"—and then rested. No witness was called to define or set forth any construction of the patent, or to establish the fact of its infringement by the use of such splice plates.

The Defendants then put in their testimony, and gave evidence as to various structures for fastening metals together and providing for their expansion and contraction, by means of slotted holes and bolts, which had been used prior to Com-

plainants' Patent and invention. Exhibits and drawings of these various structures were put in evidence by Defendants, some of which are marked Defts' Exhibits "Compound Rail," "Boston and Lowell Rail," "Oswego and Syracuse Rail Joint," "Newcastle and Frenchtown Rail." Other Exhibits were to the same effect.

After the Defendants had completed their testimony and put in evidence such prior structures, the Complainants called their expert, Mr. Elliot, who examined and studied all the structures and Exhibits of Defendants, before he gave his testimony; and his testimony, as to the construction of the Complainants' Patent, and what was covered by the claims thereof was based, when given, *not* upon an examination and consideration of the Complainants' Patent alone; but in giving such testimony, he "kept in view," to use his own language, what he called the state of the art, as evidenced from the Patent, and from the Exhibits of Defendants, and other things of which the witness had knowledge.

That this is so, is fully established by the testimony of the witness himself.

Elliott, Record, p. 84; Cr. Ints. 37–38.

"37xQ. Previous to your examination in this "case, you had examined the several Exhibits "of the defendant's in this case, viz.: the 'Com- "pound rail;' the Exhibit 'Boston and Lowell "rail;' the Exhibit 'Oswego and Syracuse rail "joint;' and the Exhibit 'Newcastle French- "town rail,' had you not?

"A. I had.

"38xQ. And in your testimony as to what is "in your opinion the invention described and "claimed in the Complainants' Patent Exhibit "1; have you given such testimony from an "examination and consideration of that patent "Exhibit 1, alone, or did you, in giving such

"testimony, take into consideration in connec-
"tion with such patent, the said Exhibits re-
"ferred to in the last question?

"A. In giving my testimony concerning the
"interpretation of the patent, I have kept in
"view the state of the art, as I understand it,
"not only from these Exhibits, but others of
"which I have knowledge."

The principle is well established and recognized, that the construction of a Patent as to what it describes and claims, must depend upon the language and meaning of such instrument alone.

Whether what is claimed in a Patent can be legally protected, when considered with reference to the state of the art existing at the time the alleged invention is made, is an entirely different inquiry.

The Complainants' Expert, therefore, it is submitted, was not justified, when interpreting the Complainants' Patent, as to what was the invention described therein and covered by its claims, in going outside of the Patent, or in "keeping in view" the Defendants' Exhibits and other things of which he might personally have knowledge, but should have "kept in view" only the Patent which he was interpreting.

Considering the testimony of the Complainants' Expert, as to construction of the Second Claim of the Reissue No. 4,870, in connection with the structures put in evidence by the Defendant, to which the attention of the Court will be more particularly called in another portion of our argument, it is evident, we think, that such Expert was introduced to establish, if possible, such a construction of the Second Claim of the Complainants' Patent, as should *be outside of and exclude* all the structures and devices, proved to have been known and used prior to Johnson's alleged invention, but should *include* the *particular* structure or arrangement of parts used by the defendants; and such expert endeavored, so far as he was able, to perform such service.

It is entirely beyond reasonable belief or supposition, had the same Expert been called by the Complainants, in the opening of their case, to give a construction to the Patent in suit, that he would have given any such construction of the Patent as he has given in his testimony.

On the other hand the testimony of the Expert of Defendants, as to the structure or device described and claimed in the Complainants' patent, Reissue No. 4870, was based, as legally it should be, upon the description and drawing of the Reissue alone.

Renwick, Record, p. 189, *Int.* 23.

The interpretation of the Complainants' Patent, and what is claimed therein, as given by Defendants' Expert, is therefore more to be relied upon than that given by the Complainants' Expert, for the reason, if for no other, that it is based upon the Patent itself, and not upon any things outside of it.

The interpretation of such Patent as given by the Defendants' expert is also fully in harmony with the language of the Patent itself.

It is therefore insisted on the part of the Defendants, that the true construction of such Second Claim is, that the self-adjusting fastener embraced therein is a combination of

The adjustable bolt or its equivalent;
The slotted side plates or their equivalent (it being immaterial whether one or two slotted side plates are used): and
Every means of suitably connecting the adjustable bolt and slotted side pieces or their equivalents with the materials or articles to be fastened together.

Or, is a combination of

The adjusting bolt or its equivalent;
The slotted side plates or their equivalents;
The two articles to be fastened together; and

The means, substantially as described—that is
The "*stud* 2" and
"*Bottom plate*" or "*shoe* 5," or their substantial equivalents—by which the adjusting bolt and slotted side plates are suitably connected to and combined with the articles or materials to be fasted.

V.—*Is Johnson the first and original inventor of the self-adjusting fastener covered by the claims of the Reissue No.* 4,870, *particularly in the second claim thereof?*

Evidence has been given, on the part of the Defendants, of various structures known and used prior to Johnson's Patent and invention, the parts of which were connected together, so as to permit of expansion and contraction on each other, and in which such expansion and contraction was accommodated by a slotted or elongated hole in one part, in which moved a pin or bolt fixed in the other part. These structures, it is believed and insisted by the defendants, contain substantially the invention covered by the Second Claim of the complainants' Reissue, No. 4,870, if such Reissue includes anything other than the particular structure specially described in said Patent; that is,

The self-adjusting fastener, consisting of
The bottom plate with its
Slotted flanges, and
The stud, having
The pin, in its lower end:
Such fastener connecting the materials to be fastened together.

To these structures and devices I will now ask your Honors attention, presenting them under two divisions.

First.—Those used on Railroads, for allowing the contraction and expansion of the rails.

Second.—Those used in other structures for accommodating the expansion and contraction of the parts.

It is to be remembered in this connection that the date of Johnson's Original Patent was May 19, 1857, and that the application for such Patent was filed March 9, 1857.

First.—Structures or devices, employing slotted plates, and bolts moving therein, to allow expansion and contraction, used on Railroads.

A.—*The Old Flat or Strap Rail.*

The flat, or strap rail, which was a rail about 2½ or 2¾ inches wide, and about ⅝ inches thich, was, as is well known, the earliest form of rail used for tracks of Railroads, and was in use in this country as early as 1830. Such rail is illustrated by the cut inserted in the Record, p. 166.

Such rails were fastened to the string timbers by spikes, passing through *holes* in the flat rails *which were larger than the spikes;* the spikes in the ends of such rails, passing entirely through the timbers and keyed, and fastened below, to prevent the ends curling or bending up.

The evidence shows that such rails were laid and used on the Newcastle and Frenchtown Railroad in 1831.

Couper, Record, p. 110, 111, *Int.* 7; 10 to 14.
Gordon, Record, p. 116, *Int.* 5, 6.

And were in use on the Paterson and Hudson River Railroad from 1837 to 1845.

Hollingsworth, Record, p. 148, *Int.* 35 to 38.

And on the Utica and Schenectady Railroad, in 1836.

Hudson, Record, p. 165, *Int.* 5 to 12.

And between 1836 and 1838, on numerous other roads.

Hudson, Record, p. 166, *Int.* 14.

It is also matter of general knowledge, that such rails were used on nearly all Railroads, before the introduction of the trial.

Such flat or strap rail structure, with the mode of fastening the same to the timbers, as proved, is considered by the defendants, to embody substantially the structure described in the second Claim of the Reissue, provided such claim covers anything beyond the particular specific structure described in such Reissue, for the reasons set forth in the testimony of E. S. Renwick.

Renwick, Record, pp. 187–189, *Int.* 21.

The "Complainants' Expert," inasmuch as there is in the use of such flat rail, a metal plate, at the joints of the rails, upon only *one side* of such rails, considers that such rails do not embody the invention set forth in the second Claim of Complainants' Patent.

Elliott, Record, p. 80, *Int.* 19.

Such Expert, as before stated, holding that there must be *two* clamps—*one on each side* of the articles to be fastened.

Such Expert, however, admits that the rail, as it expanded and contracted, could move on the spike, passing through the elongated holes.

Elliott, Record, p. 93, *Cr. Int.* 87.

B.—*The Newcastle and Frenchtown Rail.*

This is shown in "*Defendant's Exhibit Newcastle and Frenchtown Rail*," a representation of which is inserted in the *Record*, *at page* 113.

The Newcastle and Frenchtown Turnpike and Railroad Company began to act as a Railroad Company about 1831 (*Record*, *page* 110, *Int.* 7), and first used a strap rail (*page* 111, *Int.* 10) for which a T rail was substituted in 1837, which rail was brought from England in 1836 (*page* 111, *Int.* 17).

The original Contract made by that road for the furnishing of such rails, including the Specification describing such rails and their fastenings were to be made, and the Bills of Lading for the shipment of such rails were put in evidence; and copies of the same are set forth in the *Record*, *pages* 121 to 125.

Couper, *Record*, *pages* 120–121.

This Contract, made October 10, 1835, between the Newcastle and Frenchtown Railroad, and A. & G. Ralston, provides that said Raslton should purchase, in England or Wales, for said Company, "a quantity of railroad iron and fastenings agreeably to specifications furnished by the said Company."

This specification is made a part of the contract, and contains the following description.

Record, page 122.

Specification.

"Road, 16½ miles in length; rails, 16 feet
"long; weight, 45 lbs. to the yard; to be of
"dimensions and size, as copper pattern;
"1 plate (for rails to rest on) to each rail;
"1 *washer to each rail*, per wooden pattern.
"Connecting plate to be riveted on each rail,
"the *other end of rail to have an oblong hole.*
"1 bolt, with square head (to each rail), to
"pass *through the oblong hole and washer*,
"of such length as to allow of being riveted
"when the rails are laid down; 10 nails to
"each rail (as per iron pattern).

The Bills of Lading show that such railroad iron and fastenings were shipped by the vessels "Isaac Hicks" and "Kutesoff," and delivered at New Castle in 1836 and 1837.

The Specification sets forth how the rails were to be made, viz: a "connecting plate to be riveted on each rail, the other end of rail to have an *oblong* hole," with "1 washer to each rail"; and how they were to be fastened or connected together, viz.: "1 bolt, with square head (to each rail), to pass *through oblong hole and washer*, of such length as to allow of being riveted when the rails are laid down."

The meaning of such Specifications is clear as to its requirements; and to any one at all acquainted with railroads, the use of the oblong hole on one side of each rail is apparent and unmistakable.

This is clearly shown by the evidence of the Defendants' Expert.

Renwick, *Record*, *p.* 172 *to* 176.

The laying of these rails on that road in 1837, and the use of them on such roads for many years, is established by three witnesses, all of whom had personal knowledge of such rails being laid and used, and two of whom actually helped lay such rails.

Couper, *Record*, *p.* 111–114.
Gordon, *Record*, *p.* 115–118.
Dobb, *Record*, *p.* 118–120.

The testimony of these witnesses proves that rails constructed like the Exhibit "Newcastle and Frenchtown Rail," were imported for that road in 1836, and were laid down in 1837 the whole length of the road; that a part of the road was re-laid in 1846—new ties being put in where necessary,—and the same rail being re-laid; and that the Exhibit was taken from a side track laid in 1848, which was made of the same kind of iron as was laid in 1837, and which track is still down.

These witnesses were examined before the agreement and other papers, set forth on pages 121 to 125 of Defts' Record, were put in evidence; and were not asked particularly in reference to the use of a

washer with a bolt connecting the ends of the rails; nor do they testify, on the other hand, that no such washer was used. Allusion is here made to such fact because of the testimony of Complainants' expert, as to a possible difficulty of connecting the ends of the rails by riveting, and more especially when there was no washer or counter-plate or washer.

Elliott, Record, p. 79, *Int.* 15.

The presence or use of such a counter-plate is, however, not at all necessary, for the reasons given by Defendant's Expert in his testimony (*Record, p.* 173–174, *Int.* 10). The rail ends of the exhibit, however, show unmistakable evidence that such a counter-plate or washer was used in their laying (*Record, p.* 174, *Int.* 12).

The Complainants' Expert does not find in this "Newcastle and Frenchtown Rail" the two pieces of material to be fastened, and *two slotted side-plates on opposite sides of the material*, to be fast ened, and therefore gives it as his opinion that such structure does not embody the invention claimed in the Second Claim of Complainants' Patent.

Elliott, Record, p. 77, *Int.* 15.

But he admits that the rails would have motion endwise, if the bolt was fastened as he thinks they should be (*Record, p.* 92, *Cr. Int.* 85).

The Defendants, however, insists that under any construction of Complainants' Patent, which can be made to include the device they are using, such Newcastle and Frenchtown Rail is substantially the same as that described in said patent, and for the reasons set forth more particularly in the testimony of Mr Renwick.

Renwick, Record, pp. 175, 176, *Int.* 13.

C.—*The Oswego and Syracuse Rail Joint.*

The rail and joint fastenings as used on that road are illustrated by the "*Defendants' Exhibit, Oswego and Syracuse Rail Joint*, 1850," a representation of which is inserted in the *Record, at page* 107.

It is established by three witnesses who were connected with such road,

Truesdell, Record, pp.		125–127.
Curtis,	"	127–129.
Murphy,	"	129–131.

that the rails of this road were laid on this road in 1848—that the rails, as laid, were fastened together at their joints by clamps—two in number, one on each side of the rails—and bolts and keys; that there were holes through the ends of the rails which were round, and that the holes in the clamps were elongated, or longer lengthwise with the clamps; that such rails were laid the whole length, 35 miles of said road; and that rails with such kind of joint were used in that road for at least eight or nine years.

Of these witnesses, *Truesdell* was a Commissioner on that road, and delivered the iron rails along the track of the road, and saw much of the road laid; another, *Curtis*, was foreman of a gang of men, grading the road, and saw the track being laid; and the other, *Murphy*, helped lay such track, and drill the holes through the rails to receive the key-bolts.

All these witnesses testify that the ends of the rails and the clamps in the "Exhibit Oswego & Syracuse Rail Joint," are like those they saw laid on that road in 1848.

Another witness, *Wilkinson*, now a banker in Syracuse, (*Record, p.* 131, 132,) testifies that his father was President of the Syracuse and Utica Railroad in 1846 and 1847, on which road witness was an engineer, and that his father was also Chairman of the Committee of Construction of the Board of Directors of the Oswego & Syracuse Railroad; that witness saw them laying rails on that road in 1848, the joint of which was the same as that shown

in the Exhibit "Oswego & Syracuse Rail Joint," and that in the winter of 1846-47, he saw in his father's office a model of such joint, with the rails, bolts and clamps all put in; that the holes through the rails were round, and those through the clamps oval, in the direction of the length of the clamp.

Another witness, *R. E. Ricker*, was also called by Defendants, who also saw such joint in use on the Oswego & Syracuse Railroad in 1850; (*Record*, pp. 105-106); he says he was principal assistant engineer on the Rochester & Syracuse Railroad at that time, the track of which ran for some three miles side by side with that of the Oswego & Syracuse Railroad, and that in laying the track of the former road he had occasion to move the track of the Oswego & Syracuse road, and separate the joints of the rails, and that the holes in the rails were round, and those in the clamps were oblong, and that the bolt passing through such holes was a round one.

This witness also testified that in 1858, 1859 and 1860, he knew of fish plates of similar form being used on the Chicago & Alton Railroad, and on the Ohio & Mississippi Railroad, and, he believes, in other roads. (Record, p. 108, Cr. Int. 29.)

This structure, so used on the Oswego and Syracuse Railroad in 1848, being in all respects the same as the device or invention covered by the Second Claim of Complainants' Patent, as construed by Complainants' Expert, the Complainants introduced evidence to endeavor to prove that no such structure or device was used on the Oswego and Syracuse Railroad, as testified to by defendants' witnesses.

Such evidence is directed to two points:

First.—That the Clamps used on such roads in laying the track, in 1848, had round holes in them, and not oblong holes; and

Second.—That the Clamps, which are a part of the

Exhibit "Oswego and Syracuse Rail Joint," were not originally made with oblong holes in them.

To establish the *first* point, the complainants called the following witnesses:

Philander Tracey,	Record,	pp.	14–17.
Francis Hope,	"	"	18–19.
Charles Osgood,	"	"	19–22.
Thomas Harrity,	"	"	23–28.
John H. Snyder,	"	"	29–37.

The substance of the testimony of these witnesses is, that in the years 1847 and 1848, they were employed in the Albany Iron Works, and that at that time such works rolled some splice plates for fastening railroad rails, and that such plates were punched with *round* holes and round bolts were made to use with them.

The *two first witnesses* had nothing to do with the making of such splice plates or bolts, only saw them being made. *Osgood* made the bolts for the plates; and *Harrity* punched the holes in such clamps.

None of these witnesses of complainants have had their attention called to such clamps and bolts, since the time they were made as they allege—30 years ago—until a few weeks before they testified in the case.

Neither of the first four witnesses have any knowledge whatever, what became of the splice bars and bolts, after they were made at those shops or what was done with them.

Tracy,	Record, p.	15,	Cr. Int.	30.
Hope,	"	19,	"	20.
Osgood,	"	22,	"	50.
Harity,	"	28,	"	89.

The other witness, *Snyder*, who was General Superintendent, cannot say to what road such plates

and bolts were shipped, and only says that from his recollection they were to go to the Oswego and Syracuse Railroad (*Record, p.* 33, *Cr. Int.* 62–63), but he cannot say they *were* shipped to that road (*Record*, 36, *Cr. Int.* 91–93).

The witness, *Snyder*, also testified that those plates and bolts were made under his superintendence, on *written*, as well as verbal, orders received from Mr. Winslow; that he has not seen such orders since the year they were made (*Record, p.*32, *Cr. Int.* 52, 54); that such order book would state where the articles were to go; that such order books were preserved by such works and were not destroyed (*p.*33, 34, *Cr. Int.* 67, 68); that he has not examined any books or papers in reference to such clamps (*p.* 34, *Cr. Int.*72); and that he has not looked at the books or papers of the Albany Works to find out anything about such clamps, or made any effort so to do (*p.* 36, *Cr. Int.* 95).

This evidence, however, even admitting that the recollection of those witnesses of what took place to be correct, and that it is a fact that splice plates or clamps were made at the Albany Iron Works in 1848 with round holes in them, does not in any way or to any degree, affect, or qualify the, testimony of defendants' witnesses as to the *actual use*, on the track of the Oswego and Syracuse Railroad in 1848, of clamps which were made with *oblong holes*.

There is no evidence whatever in the case, *where* the Oswego and Syracuse Railroad Company purchased, or had made, the splice plates or bolts used by it in laying its road; and there is not a particle of evidence on the part of the complainants that the splice plates and bolts made by the Albany Iron Works were ever ordered by such railroad, or that the splice bars and bolts made by the Albany Iron Works in 1848 were the ones which were used by such Company in laying its road in 1848.

The chain of evidence of the complainants as to this matter is wanting in every link which connects the splice plates and bolts, made by the Albany Iron Works, with the Oswego and Syracuse Railroad, or shows their use on such road.

And on the other hand, there is the positive uncontradicted evidence of five witnesses that the splice plates *actually used* on the Oswego and Syracuse Railroad in 1848 *had oblong or elongated holes in them*, to allow for the contraction and expansion of the rails.

As to the *second* point, evidence has been offered by the complainants to prove that the holes in the splice plates, making a part of the Exhibit "Oswego & Syracuse Railroad Joint," were originally made round and not oblong.

The evidence as to this point is to be found in the testimony of

Harrity,	*Record*,	*p.* 25-6, *Int.* 49, 50.
"	"	*p.* 28, *C. Int.* 85, 88.
Snyder,	"	*p.* 31, *Int.* 45.
"	"	*p.* 35, *C. Int.* 87, 88.
Compts' Expert,	"	*p.* 75-6, *Int.* 12.

The views and opinions of the Defendants' Expert Renwick as to the same matter will be found in

Record, *p.* 181–182, *Int.* 18.

The evidence on the part of the Defendants as conclusively warrants the inference that the holes in the splice plates referred to were originally oblong, as does that of the complainants, that they were originally round.

Evidence of this character cannot, however, override or lessen the effect of *positive evidence* given by five different witnesses as to the actual fact existing, namely, *that the splice plates actually used* on that road *had oblong holes in them*, whatever may be the fact as to the exhibit in question.

It is, however, a full and conclusive answer to all this testimony of the Complainants, that the Exhibit "Oswego and Syracuse Rail Joint" is not *produced and has not been put in evidence as*, a part of *two of the identical rails, with their splicing plates*, which were *laid and used on that road in* 1848; but only as an *illustration* of the construction of the rails and the splicing plates, such as were used on that road in 1848 and 1850.

Ricker, Record, p. 106, *Int.* 9, 11.
Truesdell, " *p.* 126, "15.
Curtis, " *p.* 128, "13.
Murphy, " *p.* 130, "14, 15.
Wilkinson, " *p.* 132, " 4.

It makes not the least difference, whether the holes in the splice plates, making a part of the exhibit, were punched, drilled, or however made, or what may have been their original shape, whether round, square or oblong, if they correctly show what *was* used on the Oswego and Syracuse Road in 1848.

The Expert of Complainants admits also, if the Oswego and Syracuse Rail was laid, as the witnesses of Defendants testify, that the fish plates or bars would allow the rails to move, as they should expand and contract.

Record, p. 91, *Int.* 79.

D.—*The Compound Rail, so called.*

This is a rail in two parts, divided vertically along its length in its centre, and is usually laid so as to break joints, the two parts being fastened together by bolts. The Defendants' Exhibit "*Section of one-half of Compound Rail*," a representation of which is inserted at page 105 of the Record, illustrates this rail.

The holes to receive the bolts which united the two parts of the rail together were *round* in one-half or side of the rail, and *oblong* in the other half.

Reed, Record, p. 94, *Int.* 5, 6.

Such rails are proved to have been in use on the Utica and Schenectady Railroad in 1850.

Ricker, Record, p. 105, *Int.* 4, 5.

Such rails were also rolled by the Bay State Iron Company at Boston in 1853 and 54, to the extent of 9,970 bars, for use on parts of the present New York and New England Railroad.

Reed, Record, p. 94, *Int.* 9.

This rail, like all these previously mentioned, allows of the expansion and contraction of the parts of the rail on each other by means of an oblong hole and bolt passing through it.

The Complainants' Expert does not find in such Compound Rail the invention described in the Complainants' Patent, for the reason that there are not in such rail the *two distinct clamping plates* which he considers one of the necessary elements of the invention covered by the second claim of such patent.

Record, p. 74, *Int.* 8.

But he admits that the parts of the rail could move upon each other, by reason of the elongated holes in one part, and that the heads of the bolts and their nuts would act like clamps.

Record, p. 89, *Cr. Int.* 68–72.

The Defendants' Expert, however, finds in such Compound Rail a substantial embodiment of the structure recited in the first claim of the Reissue, sued on, and also that embodied in the second claim, according to the first construction thereof given by said witness. His reasons for his opinion are fully set forth in

Record, pp. 182–186.

E.—*The Rail and Splice-plates of the Mobile & Ohio Railroad.*

This was a solid rail punched with holes, made for iron fish-plates or splice-bars: (*Record, p.* 94-95,

Int. 10, 11). Two of such splice-bars were to be used at each joint, one on each side, (*Record, p.* 97, *Or, Int.* 41, *and Contracts*, 99, 100). These rails were rolled for that railroad in 1855, by the Bay State Iron Company, in July, 1855.

(*Record, p.* 94, *Int.* 10: *and Contract, p.* 99.)

The contract for such rails, and for the fish-plates and bolts for them, were put in evidence, (*Record, p.* 95), and are set forth at pages 99–101, inclusive, of such Record.

Said Company made and delivered 15,421 of such rails, which were made specially for that road, and under the contract produced. (*Record, p.* 95, *Int.* 13.) And such Company bought a punch specially to punch the oval holes in such rails, and the witness saw many of the rails, actually punched, and is confident that the holes in such rails were elongated.

(*Record, p.* 98, *Int.* 50–55.)

The witness who testifies as to this rail is an officer of the "Bay State Iron Works," and produces the contracts put in evidence, from the records and papers of such Company.

(*Record, p.* 93, *Int.* 1 *and p.* 97, *Int.* 31.)

The evidence as to this rail is not contradicted, or in any way questioned by the Complainants.

F.—*The Rail and Splice-piece of the Boston and Lowell Railroad.*

This was a solid rail with a wooden splice-piece. The part rail, Exhibit "*Boston & Lowell Railroad*, 1856," with the evidence of John B. Winslow, illustrates and describes such Rail and Joint, and such rail is shown by the cut inserted at page 96 of the *Record*.

Such rails were made by the Bay State Iron Company, and delivered to the extent of 1,437 rails, in

May, 1856, and were made under special order. (*Reed. Record, p.* 95, 96, *Int.* 19-23), and were made for that road only. The Exhibit "Boston & Lowell Railroad, 1856," is identified as one of those called in 1856. (*Record, p.* 96, *Int.* 23-24.)

The use of such rails on that road in 1856, is also proved by the evidence of the witnesses Winslow and Henderson, both of whom were in the employ of that road at that time, the former as Superintendent, and the latter as tracklayer.

Winslow, Record, p. 102, *Int.* 8–13.
Henderson, Record, p. 104, *Int.* 5-13.

Both of these witnesses prove the fact that such rails had elongated holes in them.

The witness Henderson had also laid upon the same road some of the same kind of rails the year previous, in 1855 (*Record, p.* 104, *Int.* 12, 13).

The Complainants' Expert testifies that this rail structure does not embody any of the features embraced in the Reissue, because the wooden spliced bar is "spiked down to the ties;" and endeavors to sustain that position from the testimony of Defendants' witness Winslow (*Record, p.* 101, *Int.* 3, 5) that such splice bar acted "in keeping the tracks in line," and from the testimony of Defendants' witness Henderson (*Record, pp.* 103, 104).

Elliot, Record, p. 75, *Int.* 10.
Elliot, Record, pp. 89, 90, *Cr. Int.* 73, 74.

No such conclusion, however, can be drawn from the testimony of those witnesses; and it further appears from the testimony of said expert (*Record, p.* 90, *Int.* 73.) that his opinion was based not only upon the testimony of these witnesses, but upon his having seen the Trimble splice joint laid by somebody, in the way he described. It was not, however, so laid on the Boston & Lowell Railroad, as Winslow & Henderson already establish.

This witness, however, admits that the elongated holes in such rail would permit the rail to expand and contract on the bolt which fastened the wooden bar to the rails. (*Record, pp.* 90, 91, *Cr. Int.*, 77, 78).

G.—*The structure shown in the Letters Patent of Moncure Robinson*, March 16th, 1839.

This Patent was set up in Defendants' answer, but was not introduced in evidence by the Defendants, as they did not consider it necessary so to do.

The Complainants, however, have put it in evidence, and it is a part of their testimony.

The Patent itself (*Record, p.* 219) clearly describes the construction of the Patentee's chair, lying against one side of the rail and which is connected to the rail by means of screw bolts passing through holes in openings in the end of the rails.

> "The holes or openings in the rails being "sufficiently long to afford the requisite play "for expansion and contraction of the rails in "all changes of temperature."

The Complainants' Expert, under his theory as to what is covered by the second clause of Complainants' patent, of course fails to find in the Robinson structure anything resembling the Complainants' alleged invention.

Elliot, Record, p. 81, *Int.* 24.

Under the construction of Complainants' patent, as given by the Defendants' Expert, and which defendants insist and maintain, is the more natural and common sense construction, the Robinson structure is considered to embrace or contain substantially the structure described in the first claim of Complainants' Reissue; and also in the *second* claim, if the construction of that claim, first given by Defendants' Expert, be the correct one.

Renwick, Record, pp. 193–94, *Int.* 31.

In this connection I would ask the attention of the Court to the different rules of construction, which are applied by the Appellants, with reference to the Original Patent, and the Reissue.

In construing the Original Patent, the Appellants take the position, that the Patent is not confined to the specific structure therein described, composed of the several parts mentioned, and arranged as described; but insists that the invention consists of the slotted plates and the bolt which slides in them, and that other structures than the one described in that Patent are embraced within it, if such structures contain the slotted plates and the bolt moving in them ; in other words, that the invention patented covers varying or different forms of structures. This construction becomes a necessity in order to sustain the Reissue, as a property granted.

But when the Defendants prove the existence and use, long before the Johnson invention, of self-adjusting devices or mechanism, for accommodating expansion and contraction, in which the adjustment is effected by means of slotted holes and bolts sliding in them ;

Then a "change of base" for construction is made, and the second claim of the Reissue is confined to a *specific form* of structure and all equivalents in structure operating on the same principle and producing like results are excluded. This construction becomes necessary in order to relieve the Reissue from the effect of prior inventions, and sustain the allegation of infringement.

The rule of construction invoked for the Original Patent is a broad and expansive one, by which the invention is *not* to be confined to a *specific* structure, though only a specific structure is described; while in the other case, the Reissue, the rule of construction is made a narrow and limited one, and the invention *is* to be confined to a *particular form* of

structure, (which is neither described or illustrated) though the invention pretended to be set forth in the Reissue, that is the "slotted plates and pin," is capable of being embodied in many forms of structure by mere mechanical changes.

In the Original Patent, the invention, to secure a certain end, is to be held to embrace different form of structures; under the Reissue, to secure another end, the invention is to be confined to a particular structure made in a specific form.

Second. Devices employing slotted plates and bolts to allow expansion and contraction, used elsewhere than on railroad tracks.

1. *Slotted plates and sliding bolts, used on Locomotives to permit the boiler to move as it expands or contracts upon the frame.*

Evidence has been given by the defendants to show the use of such devices:

By the Baldwin Locomotive Works at Philadelphia, Pennsylvania;

By Rogers, Ketchum & Grosvener, and the Rogers Locomotive and Machine works of Paterson, New Jersey;

By Swinburne, Smith & Co.;

By the New Jersey Locomotive and Machine Company;

By William Swinburne;

By Danforth, Cook & Co.; and

By the Danforth Locomotive and Machine Company, all also of Patterson, New Jersey.

A. *By the Baldwin Locomotive Works.*

Charles Parry, who has been connected with those works since 1836 (*Record, p.* 134, *Int.* 3), testifies that in such works provision was made for the expansion of the boiler on the frame, by means of a shouldered bolt passing through a slotted hole,

which secured the frame in its position without interfering with the expansion of the boiler (*p.* 134, *Int.* 6), that such device, to his own knowledge, was used in 1843 (*p.* 135, *Int.* 10); that the slotted hole was at the front end of the boiler, in the foot of the cylinder, from 1843 to 1855 (*p.* 135, *Int.* 11), when the front end of the boiler was permanently fastened to the frame and the slotted hole was placed to the back end of the boiler; and that the device was used in that position from 1855 to about six years ago (1871), on all the locomotives made at those works (*p.* 135, *Int.* 14).

The witness was in the draughtsman room from 1842 or '43 to 1858 (*p.* 134, *Int.* 5), and made sketches for the workmen from the original designs, and saw that the work was made from them (*p.* 135, *Int.* 15), and produces a drawing, marked *Exh.* "*Drawing No.* 1, *Baldwin Locomotive Works*," showing the device used in 1843, with the date, "June, 1843," put on it by the witness, from which he made sketches (*p.* 136). A copy of such drawings is inserted at page 136 of Defts' Record. An endorsement on such drawing shows that such device was put on eleven locomotives, all of which were completed between April 12, 1843, and Dec. 19, 1844 (*pp.* 136, 137, 141, *Exhibit*), besides which there were many others made using the same device (*p.* 137, *Int.* 25). Witness also produces another drawing, marked Deft's *Exh.* "*Drawing No.* 2, *Baldwin Locomotive Works*" (a copy of which is inserted at page 137), showing the same device applied from 1843 to 1855, to a different form of engine than represented in the former drawing (*p.* 137). The *Model*, *Deft's Exh. A*, illustrates the structure shown in such Exht's, *Drawings Nos.* 1 *and* 2, and the *Model*, *Deft's Exhibit B*, illustrates the structure shown in the drawing marked "*A B*," a copy of whichis inserted in the Record between pages 140 and 141.

The length of the slot exceeded the diameter of the bolt about half an inch, and was a quarter of an

inch more than the expansion required (*p.* 137, *Int.* 31); witness made experiments to determine the extent of expansion with reference to the required length of the slot (*p.* 138, *Int.* 41).

Witness also makes a drawing, marked "*Sketch No.* 1 *of Slotted Hole and Bolt*," a copy of which is inserted at page 139, which shows the form of "slotted hole and bolt" used at those works since 1855, and of the Clamp used "since about six years ago," (*P.* 138, &c.) *Model Exhibit C* substantially represents this structure.

B. *By Rogers, Ketchum & Grosvenor, and the Rogers' Locomotive and Machine Works, and other locomotive works at Paterson, N. J.*

William Swinburne went into the employ of Rogers, Ketchum & Grosvenor in 1835, before they commenced making engines, which they did in 1836; was foreman and superintendent until 1844; he helped build the first locomotive built, which was completed in 1837. (*Record*, *p.* 154, *Int.* 2, 3.)

In the first locomotives built—for about two years—the frame was outside of the wheels, and the boiler was supported by braces from two to two and a half feet long, in which no provision was required for expansion andcontraction (*p.* 154, *Int.* 4, 6); in 1839 or 1840 they put the wheel outside the frame. Such engines at first had no provision for expansion, and complaints being made that the strain of the expansion caused the rivets to leak (*p.* 154, *Int.* 10), Mr. Rogers directed the brace on the furnace to be made broad, and a strap put over it, which strap was bolted to the frame; the brace was slotted to admit of expansion (*p.* 154, *Int.* 10), the slots being sufficiently long to admit any expansion required (*p.* 155, *Int.* 18); such device was first used in 1839 or 1840 (*p.* 156, *Int.* 24), and was always after that time put on their locomotives (*p.* 156, *Int.* 23).

Witness left those works in 1844, and commenced building locomotives with a new company—Swin-

burne, Smith & Co.—which company, after about six years, was chartered under the name of the New Jersey Locomotive and Machine Company. Witness remained with that Company, and then carried on the same business by himself; he carried on such business, with others and by himself, fifteen years longer, or until 1859 (p. 156, *Int.* 26); and the same device for expansion and contraction was used on all the locomotives built during these fifteen years (p. 156, *Int.* 28.) The Rogers Works and the other works made about 150 locomotives, and such device was put on about 140 (p. 156, *Int.* 29); such device was called an expansion plate or pad, and the whole fixture the expansion brace (p. 156, *Int.* 30–31).

The device used, the witness says, is represented in the drawing marked "*Exhibit Expansion Plates of Rogers' Locomotive Works*"—a copy of which is inserted in Defts' Record at page 151—except that he used but *one* expansion brace, and none on the lower brace of the frame, as shown in such Exhibit (p. 157, *Int.* 35–37). The Model *Defts' Exhibit C* substantially illustrates this device.

John Cooke was superintendent of the same works—the Rogers Locomotive and Machine Works—or its predecessors, from 1846 to 1852 (*Record* p. 157–8, *Int.* 2); he served his apprenticeship there; the same device substantially as that described by Swinburne, continued to be used at those works and was put on all locomotives built at those works, while the witness was there (*Record* p. 158, *Int.* 3–7).

In 1852 witness left those works, but went into the same business under the name of Danforth, Cooke & Co., which Company continued until 1865, when it was organized as the Danforth Locomotive and Machine Co. (p. 158, *Int.* 7). Witness was Superintendent of the Locomotive Department of Danforth, Cooke & Co., during its existence, and of the Danforth Locomotive Machine Co., for one year (*Int.* 7). All the locomotives built by said Companies had on them the same device that was used on those built by the

Rogers Locomotive and Machine Works (*p.* 158, Int. 8).

Witness says, on cross-examination, that the expansion plate shown in the drawing, *Exhibit "Expansion plates of Rogers' Locomotive Works,"* is about the same thing as was used, while he was at the Roger's Works—sometimes *one* expansion plate used and sometimes *two;* but none were placed on the lower part of the frame (159, Cr. Int. 16).

William S. Hudson went into the employ of the Rogers' Locomotive Works in 1852, and was principal assistant to Mr. Rogers until 1856, when the present firm or company, the Rogers' Locomotive and Machine Works were organized, and he has been Superintendent ever since (Record *p.* 149 Int. 2, 4).

On all the locomotives built at those works, since 1852, with two or three exceptions, a device for allowing expansion was used, substantially the same as described by the witnesses, Swinburne and Cooke (*p.* 149, 150).

The whole number of locomotives built by those works is 2,451, of which 2,115 have been built since 1852 (*p.* 150, Int. 17).

Witness produces the drawing before referred to, marked Exhibit "*Expansion plates, Rogers' Locomotive Works*" (a copy of which is inserted at page 151 of Record), and explains the same (*p* 151, 152).

Witness saw in 1844 and 1845 Locomotives built by those works, which had on them such expansion plates (*p.* 152, Int. 31).

The existence and use of these devices for expansion on the locomotives built by the Rogers Locomotive Works, is also proved as early as 1845 by the testimony of the witness George Hollingsworth,

Record, p. 146–149.

and as early as 1849 by the testimony of the witness John Thompson.

Record, p. 142–146.

Henry A. Luttgens, who has been in the employ of the Rogers Locomotive and Machine Works, and its predecessors since the Fall of 1852, also testifies to the use of the same device for expansion in the locomotives built at those works.

Record, p. 160–164.

This witness produces also, from those works, a drawing marked "*Copy Expansion Plate from Exh. Drawing No.* 1 *Rogers' Works,*" showing such expansion plates, which were made before he went there (*Record, p.* 161, *Int.* 8); and another drawing marked "*Copy Expansion Plate from Exh. Drawing No.* 2 *Rogers' Works,*" made by the witness 3 or 4 months after he went there, showing such device more fully. (*Record, p.* 162, *Int.* 18.) Copies of these drawings are inserted in the Record at page 162. Defts' *Model Exhibit C* is a substantial representation of the provisions for expansion represented in these drawings.

The Rogers' Locomotive Works is one of the oldest locomotive works in the country. The Baldwin Locomotive Works at Philadelphia, is several years older (*p.* 152, Int. 33).

2. *Other devices having an elongated or slotted hole and sliding bolt, for connecting metals and materials together, and permitting motion one upon the other.*

The Defendants' Expert also mentions a number of other applications or uses of such slotted hole or bolt, which were known and used prior to 1857, among which are the following:

Stands for rolls in rolling mills;
Pillow blocks for revolving shafts;
Guides for saw gates of saw mills;
Lathes for turning wood and metals;
Rests for turning lathes;
Slotting and planing machines, &c.,

in all of which expansion and contraction, if they took place, would be provided for, though the application of the slotted holes and bolts was not specially intended for that purpose.

Renwick, Record, p. 195, *Int.* 32; *Ans., p.* 197,

None of this evidence as to those early structures, and the use therein of *slotted or elongated holes, or plates with slotted or elongated holes, and bolts* to allow of the expansion and contraction of the joints, has been contradicted, or attempted to be contradicted, by the Complainants, except in respect to the "*Oswego and Syracuse Rail Joint*," and as to that only indirectly or inferentially; the nature and effect of the Complainants' testimony in reference to that Rail Joint we have examined and commented on in a previous portion of this argument.

Such evidence establishes the application and use, *prior to* 1843,—the earliest established date at which Johnson is pretended to have had any idea or conception of any device, using slotted holes and sliding pins, for any purpose—of elongated holes and bolts, *in the old Flat or Strap rail; in the Newcastle and Frenchtown rail;* and also *on locomotives in the connection between the boiler and the frame;* and the continued use—*from* 1839 *or* 1840 *to* 1857, *when Johnson first applied for his patent*—of the same self-adjusting mechanism on locomotives for the same purpose; and the use, *for a long time previous to* 1857, of such arrangement of elongated holes and bolts, to allow expansion and contraction *in the Compound Rail* (as early as 1850); *in the rail for the Mobile and Ohio Railroad* (made in 1855); *in the rail of the Boston and Lowell Railroad* (laid as early as 1855); *in the Oswego and Syracuse Rail* (laid in 1848), and *in the various other structures* mentioned by the witness Renwick.

The application and use of such slotted or elongated holes and bolts, in the *Oswego and Syracuse Rail* and the *Mobile and Ohio Rail*, was also with the same construction and combination of parts—a splice-plate with elongated holes being used *on*

each side of the rail—as is used by the defendants and claimed to be an infringement of the complainants' patent.

I need not again repeat what has been before stated as to the testimony of the complainants, which was introduced with reference to the *Oswego and Syracuse Rail Joint.* It is insisted, however, that such evidence does not, in any degree, disprove the construction of such joint, as described by the defendants' witnesses.

The evidence as to the *Mobile and Ohio Railroad Rail,* though it does not show the actual laying of such rail, proves that 15,421 rails were made for that road in 1855 and 1856, and that 133 tons of the splice-bars were contracted to be made, with 60,000 screw-bolts for connecting the rails and splice-bars; and such evidence most certainly legally justifies the inference that such application and use was not experimental, but that such rails were used and laid as they were constructed to be laid.

The case of *Parker* vs. *Ferguson,* 1 Blatch., 408, is directly to the point, that the *actual use* of an article, made for use and taken away for such purpose, is not material.

On the trial, before Nelson, *J.*, the defendant set up the defence of a want of novelty in the invention, and to support it introduced a witness, Hosea W. Holmes, who swore that in 1819, in Stonington, Connecticut, he assisted in constructing a water-wheel embracing the principle of the patentees' invention; that it was constructed for a man who lived twelve miles distant from Stonington, and was carried away by him to be put into a mill; and that the witness never saw it afterwards.

In charging the jury, Nelson, *J.*, remarked, "that if the wheel spoken of by the witness, "Holmes, was constructed before the plaintiff's "wheel, and was a perfect wheel, and was taken

"away to be used, the evidence, if believed,
" was sufficient to establish the fact of a want
"of novelty in the plaintiff's wheel, although
"there was no evidence that the prior wheel
" was ever actually used."

It is insisted by the Defendants that the evidence offered by them, and not contradicted by the Complainants—except by the mere speculations of their expert—clearly establishes that the complainants' patent, if of any validity, can only be sustained by such a construction as shall confine the invention of *self-adjusting fastener* to the particular structure therein described and represented; and that it cannot include any other mechanism or combination in which slotted holes and bolts permits expansion and contraction of the parts.

A tabulated statement of the dates at which the several before-mentioned devices, having slotted holes and sliding bolts for accommodating expansion and contraction, are shown to have been used; and in connection therewith the dates of the alleged invention and patent of Johnson is given, for convenience of reference.

FLAT RAIL.

1831. Couper, Rec., pp. 110, 111. Gordon, p. 116.
1838. Hollingsworth, p. 148.

NEWCASTLE AND FRENCHTOWN RAIL JOINT.

1836. Couper, p. 110–120. Gordon, p. 115.
1836. Dobb, p. 118. Contracts, &c., p, 121–125.

EXPANSION PLATE ON LOCOMOTIVES.

Rogers' Locomotive Works.
1840. Swinburne, p. 153. Exh. C.
Baldwin Locomotive Works.
1843. Parry, p. 134. Exh. A.

OSWEGO AND SYRACUSE RAIL JOINT.

1848. Truesdell and others, p. 125–131.
1850. Ricker, p. 105.

COMPOUND RAIL.

1850. Ricker, p. 105.
1853. Reed, p. 94.

MOBILE AND OHIO RAIL.

1855. Reed, p. 94.

BOSTON AND LOWELL RAIL.

1855. Reed, p. 95.
1855–6. Henderson, p. 103.
1856. Winslow, p. 101.

JOHNSON RAIL FASTENER.

1843. Model.

JOHNSON PATENT.

1857. March 9, Application filed.
1857. May 19, Patent granted.
1871. Patent extended.
1872. April 16, Reissue granted.

If the invention covered by the Reissue is the self-adjusting fastener shown in Fig. 3 of the Patent, consisting of

The adjustable bolt or pin (3),
The bottom plate or shoe (5), having
The slotted side plates or flanges (4), and
The stud 2, connected with
The two articles to be fastened together,

—it is not denied, in the present suit, but that he is or may be the first and original inventor of such combination.

If, however, the claims are given a broader construction, as must be the case to justify any allegation of infringement thereof by the defendants, and the invention embraced therein is held to cover the combination of

The adjustable bolt, or its equivalent, and
The slotted side plates, or their equivalent, which may be a *single* slotted plate,

With means for suitably connecting such bolt and slotted plate or plates with the materials or articles to be fastened together,

Then it is submitted that Johnson was not the first and original inventor of such Combination; as the devices and structures proved by the defendants clearly anticipate any such alleged invention.

VI.—Can the Complainant's Patent be held to include a *self-adjusting fast ner*, applicable to railroads.

It is insisted by the Appellees that

> *If Johnson ever made any invention of a self-adjusting fastener, applicable to railroads he has abandoned the same.*

The evidence in the case as to the alleged invention of Johnson, of any self-adjusting fastener, applicable to railroads and of his acts in connection therewith, is as follows:

Asa Johnson, the Complainant, testifies that previous to 1843 he had had his attention directed to the expansion of Metals in Roofs, Wagon-tires, &c.;

That in April, 1843, he made some drawings of his self-adjusting fastener, as adapted for use on Railroad rails (*Record, p.* 51, *Int.* 24), which drawings he produces, and copies of which, marked 96 *a* and 96 *b*, are inserted between pages 52 and 53, of the Record; and that in 1845 he made other drawings, copies of which are also inserted in the Record, following those just mentioned and marked 96 *c*, 96 *d*, and 96 *e*.

That before he made the said drawings, and in the Spring of 1843, he made a model, illustrating his invention as applicable to railroads, which is also produced and put in evidence, and is marked "*Comp.'s Exh.. Johnson Model*, 1843;" that soon after he made such Model, he showed it to his brother-in-law, Alanson Strong, aud his brother

Griswold Johnson, and explained it to them; that this took place at his brother's house, and that the conversation "lasted about a quarter of an hour, more or less," and that he never has had, as he recollects, any other conversation with them about such invention until the present year (*Record*, *p.* 51, *Int.* 22, 23); that this conversation took place in the woodhouse, at noon time, and that after he had shown to them such Model, he "put it on the plate under the eaves of the woodhouse, under the roof at the eaves" (*Record*, *p.* 54, *Int.* 42, 43; *p.* 61, *Cr. Int.* 125); and that such Model remained there in the woodhouse, until the Spring of 1876, (after this suit was commenced,) when he went to Franklin to see if he could find it, and found it "under the roof where he laid it in 1843" (*Record*, *p.* 57, *Int.* 71, 73); that he was at Franklin in 1856, but did not, at that time, see such Model (*p.* 56, *Int.* 69, 70), or look for it (*p.* 63, *Cr. Int.* 141); and that he never saw such Model after he put it away in the woodhouse in 1843, until he went for it in 1876 (*p.* 61, *Cr. Int.* 127).

That he moved from Franklin to Acra in 1847 (*p.* 55, *Int.* 49), but did not think anything about the Model then (*p.* 61, *Cr. Int.* 126); that he cannot say that he made any other complete Model in Franklin (*p.* 61, *Cr. Int.* 124); but that just after he moved to Acra he made a second similar Model (*p.* 56, *Int.* 60), which is not now in existence, but he says it was lying about the house while he lived at Acra (*p.* 62, *Cr. Int.* 141); and that he does not recollect of making any other Model (*p.* 56, *Int.* 65).

Johnson further testifies that after he had made his invention of his self-adjusting fastener, as adapted to railroads, he invented another fastener that was to be used on a roof (*Record*, *p.* 56, *Int.* 59; *p.* 61, *Cr. Int.* 119).

That after he moved to Acra he continued to experiment on the metal house and roof on which his fastener was to be used; and on a cornice machine for making the cornices, gutters and moldings of all descriptions, until he got a chance to sell an in-

terest in his invention (*Record p.* 55, *Int.* 51, 52), which he did in 1856 or 1857 (*Int. p.* 55); that these experiments hadn't *anything to do with railroads* (*p.* 62, *Cr. Int.* 139); that he never saw any Railroad Co. in reference to putting his invention into use, or made any full sized Model of his fastener, as intended to be applied to railroads (*Record, p* 63, *Cr. Int.* 157, 158) previous to 1857, which was when he applied for his original patent.

Other witnesses, *Alanson Strong and Griswold Johnson and Ira A. Strong*, were called by the complainants to corroborate the former witness; their testimony, however, need not be particularly referred to.

Their depositions will be found in the *Record at pages* 37, 42, 65.

Clarissa Johnson, the wife of Asa Johnson, testifies that she was married to Mr. Johnson in September, 1846; that they went on their wedding trip to Auburn, to the State Fair, and that on their return her husband told her of an invention he had, that he called an adjustable fastener, which he thought was valuable for railroad rails (*Record, p.* 47, *Int.* 6); and that after they moved to Cairo she saw a Model of such fastener, having a bottom plate and slotted side flanges or plates (*p.* 48 *Int.* 18). On cross-examination she says she saw such Model when they were unpacking their things which they had brought from Franklin (*p.* 49, *Cr. Int.* 27). If this is the fact, then of course the model must have been made before Johnson left Franklin; but *he* testifies that he did not make another model, besides the one he put away under the eaves of the wood house, until *after* he moved to Acra (*p.* 56, *Int.* 60). The fact is of but little importance one way or the other, except as proving that evidence based upon recollection of what took place thirty years ago is to be received with great allowance.

It does not appear that she ever saw or heard of any other model while they were at Acra, or at any

other time, and she knows nothing about that model that was lying about the house, as Johnson testifies when he was living at Acra.

Mrs. Johnson also testifies that her husband was all the time inventing, having drawings and models about the house (*p.* 49, *Cr. Int.* 34) among which were a metal house and a machine for making metal cornice and gutters (*Int.* 34).

This evidence corroborates Johnson's own testimony (*Record, p.* 55, *Int.* 51), that after he went to Acra, he continued to experiment on the metal house and roof on which his fastener was to be used and on a cornice machine for making cornices, gutters, &c.

The history of this invention, from 1843 to 1857 and of the drawings and model showing the same, is, in a few words, as follows:

In 1843 Johnson makes his model "Exhibit Johnson Model," and after that makes drawings of the same; he shows this model to two persons, and talks about it with them for, perhaps, fifteen minutes, and then hides it away in the woodhouse, under the eaves, and, though he lived in Franklin four years after that time, and went there again in 1856, he never saw that Model again, or even looked for it until in the spring of 1876, *when he went to get it for the purposes of this suit*, and resurrected it, after it had lain dead 33 years.

When he moved from Franklin he never thought anything about the Model, and when he went back there in 1856, at the very time he was trying to sell an interest in his invention, he did not go to find or see it.

He cannot say that he made any other Model during the four years he remained at Franklin, but just after he moved to Acra in 1857 he made one, which was lying about the house, but which he did not see when he moved from there in 1857, and it is not now in existence.

He never made a full sized Model of such invention, or saw any railroad in reference to putting that invention into use before 1857 (the time when he made his application for his original patent before referred to), and there is no evidence he ever did either of these things afterward.

And during all these fourteen years Johnson not only did not make any efforts to put his inventions, either for railroads or roofs, in use, but he never made any effort to protect his inventions, in either form, by Letters Patent. But during that time he had sold one farm for $1,400; had bought and sold an interest in a Patent, on which he made over $100; had married; had bought another farm; had spent about $500 in repairing the house upon it, and had been able to keep on experimenting, filling his house with Models and drawings o various kinds.

It is also to be noticed that this invention, as shown in the "Exh. Johnson Model," was complete and perfect, according to Johnson's testimony, in 1843, when such Models and drawings were made, and has not been changed or improved since it was first made.

In March, 1857, *fourteen years after* the time he says he made the Model referred to, Johnson made his application for his original Patent for his self-adjusting fastener.

His petition (*Record*, p. 210) characterized his invention as a "Self-adjusting fastening for connecting metallic coverings to buildings and to accommodate its contractions and expansions," and the Specification used substantially the same language.

The Specification first filed was returned as embracing several inventions (Rec. p. 209) and was amended by a new specification so as to embrace only the self-adjusting fastener, but the description as to that remained substantially the same as in the one first used, and the Claim as allowed (Rec. p. 218) was for "The self-adjusting fastener, *as described*,

"for the purposes mentioned, substantially as set "forth, or any mechanical device equivalent thereto."

The Specification first filed by him, and the one substituted for it, are set forth in the *Record*, pages 209-218).

We search those instruments in vain to find any description or illustration of the Model of 1843, or of any device in any respect resembling it, or for any intimation or suggestion that the invention described in his specification was to be used or could be used upon rails of railroads; and the fastener described in such Specification was moreover of such a construction that it could not be applied for use on railroads.

The Patent act, in force at the time (1857), Johnson made his application, was that of 1836. Under that act, § 6, an inventor was required to "deliver a written description of his invention or discovery, and of the manner * * of constructing, and using * * the same, in full, clear and exact terms;" "and, in case of any machine, he shall fully explain *the principle*, and *the several modes in which he has contemplated the application of that principle or character*, by which it may be distinguished from other inventions."

The reason for these requirements—that the invention should be fully described, so that the public may be enabled to use the invention when the patent has expired, and that while the patent is in force, others may be informed of the precise invention and claim of the patentee—has been set forth in many cases.

Parker v. *Stiles*, 5 McLean, 44.
Smith v. *Downing*, 1 Fisher, 64.
Amer. Pin Co. v. *Oakville Pin Co.*, 3 Blatchf., 193.
Carr v. *Rice*, 1 Fisher, 204.
Brooks v. *Bicknell*, 3 McLean.

It has also been held by the Courts that these requirements are prerequisites—conditions precedent

—to the granting of a patent, and unless they are complied with, the patent cannot be sustained.

Whitney v. *Emmott*, Bald., 320.
Sickles v. *Glou. Mfg. Co.*, 1 Fisher, 228.
Ransom v. *Mayor, &c.*, 1 Fisher, 252.
Wyeth v. *Stone*, 1 Story, 273.
Carver v. *Braintree Mfg. Co.*, 2 Story, 432.
Hovey v. *Stevens*, 3 W. and M., 27.
Borden v. *Corning*, 2 Fisher, 473.

These decisions are in entire harmony with the spirit the our Patent Laws, which "are passed for the ultimate benefit of the public, and not for the sole benefit of inventors and patentees."

Day v. *Union Rub. Co.*, 3 Blatchf., 500.

The inquiry in this connection is not, assuming that the Johnson specification was sufficient under the law and his patent a good and valid one, whether such patent would or would not cover or embrace the application of his mechanism to a railroad track for accommodating or permitting the expansion and contraction of its rails, if such application had been found useful since his patent was obtained, and if the invention described therein was capable of such application.

But whether, as *Johnson knew of such an use or application at the time he applied for his patent*, but did not either explain, refer to, or suggest such application in his specification, or set forth what variation in structure was necessary for such application, his patent can now be legally construed, and held, to embrace such an application.

Under the United States patent laws, the specification is the most important part of the patent. This is in marked contrast with the practice in Great Britain, where the specification does not form a part of the patent, and the rights of the inventor are made to depend upon the description of his invention, inserted in the title of the patent, and cannot be helped by the specification.

But even under the English law, it has been held, that when a patentee made an improved mode of working his invention *different from that described in his specification*, the burden of proof rested on him to show that he had made such improvement subsequent to the issuing of his patent, *otherwise it would be presumed that he did not disclose in his specification* what he should have done.

Bovill *v.* Moore, Dav. Pat. Cas. 361, 401.

In that case Lord Chief Justice Gibbs, said:

> If the patentee, since he obtained his patent, has discovered the improvement referred to, he may apply that improvement, and his patent will not be affected by his using his machine in that improved state; but if, at the time when he obtained his patent, he was apprised of this more beneficial mode of working, and did not by his specification communicate this mode to the public, that will have been a fraudulent concealment from the public, and will render his patent void.
>
> And the learned judge further held that, if such concealment was not *fraudulent* but only inadvertent, if he actually knew and meant to practice that mode of working (the one not described), and inadventently did not state the whole in his specification, that he must answer for the inadvertence.

The original Johnson patent made no allusion whatever or intimiation, that the *self-adjusting fastener*, described in it, was intended to be used on railroads, or could there be used.

And the claim in that patent was for

> "The *self-adjusting fastener as described*, "for the purpose of attaching metallic cover- "ings to buildings, and accommodating *itself* "to the contraction and expansion of the metal, "and for fastening metals in any and all other "places where the contraction and expansion "demand accommodation, *substantially as set* "*forth*, or any mechanical device equivalent "thereto."

The patent, with its original claim was allowed in 1857, and lived out its term of fourteen years; and there is no proof or intimation that the inventor either believed or supposed it did not cover his real invention and all of it; and such important fact was never discovered until new parties became owners, and saw or fancied they saw a rich harvest, *if* they could but *trasform* this adjusting *fastener for roofs* of buildings *into a fastener for railroad rails*, and thus compel railroad companies to pay tribute to them.

From 1843—when the *self-adjusting fastener*, as adaptable for application to railroad rails, was made by Johnson, and it was then as complete and perfect as it ever has been since that time—*down to* 1857, when Johnson made his application for his original Patent—*a period of fourteen years—Johnson did nothing* in connection with his invention, as adapted for use upon railroads, *except making copies in* 1845, *of the drawings before made in* 1843· (and this was in connection with drawings for the application of his fastener to roofs, which was in fact the thing to which all his attention was principally directed down to 1857), and making in 1847, just after he moved to Acra, *a second model* (like the one made in 1843), *which was lying about his house, and is not now in existence.*

And *for another period of fifteen years, from* 1857, the time when he obtained his Patent, *down to* 1872, when the Reissue in suit was obtained (and which was obtained, as the circumstances warrant us in saying, for the purpose of making the original Patent broader so as to cover adjusting fasteners of different construction and for other purposes than set forth in the original Patent), no claim was ever made or pretended, that the invention described in the original patent had any reference to any other use or application that the one described in such Patent, to wit, for use in fastening metallic coverings to roofs, and so that such coverings could expand and contract.

These facts, above stated, as to the invention of Johnson, and his subsequent acts in reference thereto, fully warrant the conclusions—

That he never thought his invention, so far as its use upon railroads was concerned, of any special value and importance, or,

If he did, that it has been abandoned by him.

Title thereto cannot now be asserted and maintained, under his Reissue.

He has come into a *Court of Equity* for redress; he must show that he himself has done equitably toward the public.

The decisions of the Court fully sustain the position that Johnson abandoned his invention as to its application to railroads, or, to speak perhaps more correctly, that what he did in that direction amounts to but an *abandoned experiment.*

In *Cahoon* v. *Ring* (1 Clif., 592; 1 Fish., 397), the patent sued on was for a Seed Sower. The evidence of the defendants showed that, before the complainants' patent or invention, a similar machine had been made by another party, by whom it had been used or tried in a shop a number of times, but had never been actually used as a seed sower in sowing seeds for agricultural purposes; that only a few persons knew about the machine; that afterwards such machine was taken to pieces—when the maker was moving to another place—and put in a tool chest; that his son used to take and play with it, and lost it, or portions of it; and that when the inventor last saw it he did not know whether it was together or not, or where it was at that time. Parts of such original machine were produced by the witness, who at the request of the defendants had looked to see if he could find the machine, and had found such parts, which were with other parts made into a model substantially the same as the one he originally constructed.

> The Court instructed the jury to determine whether such party had made his invention public; and that if he did not, but had used it for no purpose except his private experiments, and it had been broken up before the complainants' invention, and its essential parts lost and the invention forgotten, that such invention would not defeat the complainants' patent.
>
> And also, that machines never made public and used only for private experiments and then broken up, and the materials thereof appropriated for other purposes and ultimately lost, could be no obstacle to the complainants' patent.

The jury found for the plaintiff, under such rulings of the Court, and a motion for a new trial was overruled.

In the *Consolidated Fruit Jar Co.* v. *Wright*, 12 Blatch., 149, the inventor made his invention in 1859, but did not apply for a patent until 1868. In the intermediate time he obtained other patents, and articles like his invention had been manufactured and used by others. The Court said:

> "If an inventor without substantial reason or "excuse, abandons the use of his invention, and "for nine years sleeps in his rights, and in the "meantime others, in good faith, employ their "industry, skill and money, to produce the "same thing, and give the public the benefits "thereof, putting it into extensive use and on "sale, such a state of facts not only warrants "the inference of abandonment by the first in- "ventor, but also creates between him and the "others the same equity as would arise if such "others had gone further and taken out a pat- "ent. Whether the device be patented, or 'has "'gone into use without a patent,' should make "no difference."

The bill was dismissed in the Court below, and on appeal to the Supreme Court such decision was affirmed.

In *U. S. Rifle & Cart. Co.* v. *Whitney Arms Co.*, 12 Off. Gaz., 373 (Shipman, *J.*, Conn.) the patentee, Cochran, made an application for a patent in 1859, which was rejected and voluntarily withdrawn by him in 1860 ; in which decision the patentee acquiesced until 1868, when he renewed his application, on which eventually he obtained a patent in 1872. In the interval between 1860 and 1868 he had directed his attention to other kindred inventions and obtained patents thereon.

The Court says : "If it could be shown that "his poverty was a reason for his not renewing "and pressing his application in this particular "invention, such testimony would tend greatly "to dispel the idea of laches ; but his want of "means was not, apparently, the cause of his not "seeking to place the invention in its present "position" (that is, obtaining a patent for it.) "He was absorbed in the attainment of success "in the enterprises which occupied his mind to "the exclusion of this invention, which he did "not regard of as much importance as the "others."

"A person may forfeit his rights as an in- "ventor, by a wilful or negligent postpone- "ment of his claims, or by an attempt to with- "hold the benefit of his improvement from "the public until a similar, or the same im- "provement should have been made by others. "(*Kendall* v. *Winsor*, 21 How., 322). If there "was no purpose on the part of Cochran to "withhold his improvement from the public, "there was a negligent postponement of his "claim until after the other invention had ac- "quired equity which it seems unjust to "destroy."

The Court then quotes and approves the decision of Judge Woodruff in *Con. Fruit Jar Co.* v. *Wright*, 12 Blatch., 149, before quoted.

In the case of *Albright* v. *Celluloid Harness Trimming Co.*, 12 Off. Gaz., 227, proof was offered as to a certain device, which was invented by a witness, who made some experiments with it and then put it away on a shelf in his shop, until it was brought out for the purpose of use in the suit mentioned.

> The Court says: "He fails everywhere in his "testimony to indicate that he regarded his de- "vice as of any practical value, and he ceased, "for years, all efforts to make it successful. "Under those circumstances what he did must "be put in the category of abandoned experi- "ments."

Other cases, as to abandonment, as follows, may be cited:

> *Morris* v. *Huntington*, 1 Paine, 354.
> *Meller* v. *Silsbee*, 4 Mason, 111.
> *Pennock* v. *Dialogue*, 2 Pet. C. C., 16.
> *Shaw* v. *Cooper*, 7 Pet. U. S., 392.

It is submitted that the facts in the case, as established by the complainants themselves, as to any invention of Johnson, applicable to railroads, and for the purpose of permitting the expansion and contraction of the rails, fully justify the legal conclusion, under the cases cited, that he had long since abandoned the same.

VII.—*Are the Appellees by their use of the Splice bars* "Complainant's Exhibit No. 2," (a drawing or representation of which is inserted in the Record, at page 12), *using anything which the Appellants can legally include in and cover by their Patent, Reissue* 4,870.

The followingconclusions are submitted, as warranted by the facts, and the law governing them :

1. If the Court from the evidence in the case—which shows that the complainant made his invention in a form adaptable to railroads, in 1843 ; that he did not, after 1843, do anything to more fully complete and perfect such invention, for such use or application ; that his *first* model, made in 1843, was at that time put away by him in a by-place, where it was concealed from and unknown to the public, and remained there from 1843 to 1876 ; that a *second* model was not made until 1847, four years after the first, and was taken so little care of that it was left "lying laid about his house," and eventually became lost ; and that he took no steps to put such invention in use, or to protect himself by a patent of such invention, *at least for fourteen years*, and that his neglect to do so did not arise from want of means, or from any other circumstances beyond his control and to which he was compelled to submit ;—shall hold, as the Defendants and Appellees insist and maintain it must hold, that Johnson's acts amount to a legal abandonment of his invention, so far as applicable to railroads, or that what he did is but an abandoned experiment :

Then the Defendants have a right to use such invention when applied to railroads, even if Johnson was the first and original inventor thereof, and the patent cannot be held to embrace it, and of course there is not, by such use, any infringement of such patent.

2. If the Court should hold that the acts of the complainant, Johnson, do not amount to an actual or legal abandonment of his alleged invention of a self-adjusting fastener for use in connecting railroad rails, and that the Reissue will cover such a fastener, it must still be held, we submit, that the date of invention of such fastener cannot be placed before the time

of his application for a patent in 1857; his acts previous to that time being only in the nature of abandoned experiments.

3. If it shall be held that the structure, described in and covered by the Second Claim of the Reissue, is that assumed by the Complainant's Expert, viz:

Two pieces of material to be fastened together.
Two slotted side plates serving as clamps on the opposite sides of the materials, and,
An adjustable bolt, to hold the plates in position;

It must be held that such Claim cannot be sustained, for the reason that the identical structure, regarded by such expert as included in and covered by such claim, had been used *before Johnson's application for a patent*, on the Oswego and Syracuse Railroad, in 1848, and on the Ohio and Mobile Railroad, in 1855 and 1856.

4. If it shall be held that the structure recited in and covered by the second clause of this patent is that *firstly mentioned* by Defendant's Expert, to wit, a combination of

The adjusting bolt or its equivalent,
The slotted side plates or their equivalents and
Every means of connecting the adjusting and slotten side plates or their equivalent, with the articles or materials to be fastened together;

Then the Complainant's Patent must be held invalid, as the several structures, proved to have been used prior to 1843, embody substantially the same structure or combination covered by the patent, and are substantially identical with the structure which the defendants are using, and therefore such use cannot be considered an infringement of such patent.

5. If the structure recited in and covered by the second claim of Complainant's Patent is that *secondly mentioned* by the Defendants' Expert, to wit, a combination of

The adjusting bolt, or its equivalent,
The slotted side plates, or their equivalents,
The two articles or materials to be fastened together and
Suitable means, substantially such as are described or specified—such means being the "stud 2" and the "bottom plate" or "shoe 5" —by which the adjusting bolt and slotted side plates are suitably connected to and combined with such materials or articles;

Then the Defendants do not infringe the said claim of Complainant's patent, as the structure used by them embraces no feature or elements which are like or the equivalents of, "the stud 2" and "bottom plate" or "shoe 5," or either of them.

It is submitted that the second claim of the Complainant's Reissue, No. 4,870, must be held to embrace and cover *one* of the *two structures* specified by the Defendants' Expert, in his answer to the 6th direct interrogatory; (Record, pp. 170, 171).

That is, such claims must be confined to the peculiar structure described and shown in the patent—or if it have a broader scope and meaning, then, it must be for the adjusting bolt, and slotted side plates or their equivalent—which is declared by Complainant, in his Patent, to constitute "the self-adjusting mechanism"—when connected by any suitable means with the articles or materials to be fastened together.

The construction of such second claim as contended for by the Complainants' Expert, gives to such claim

Neither the interpretation, which make, it cover the self-adjusting mechanism, *i. e.*, the adjusting

bolts and the slotted side plates, when suitably connected by any suitable means with the articles or material to be fastened together;

Nor the interpretation, which makes it cover only the specific structure described and shown in the patent;

But it makes such claim cover *a specific structure*, which, however, is different, in arrangement and combination, from the particular structure described in said patent, and different also from any structure illustrated or suggested in such patent.

For the reasons above set forth, it is submitted that the Appellants cannot maintain their appeal.

The decree of the Court below should be affirmed.

S. D. LAW,
of Counsel for Appellees.